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The Economic and Budget Outlook: Fiscal Years 1992-1996

A Report to the Senate and House Committees on the Budget

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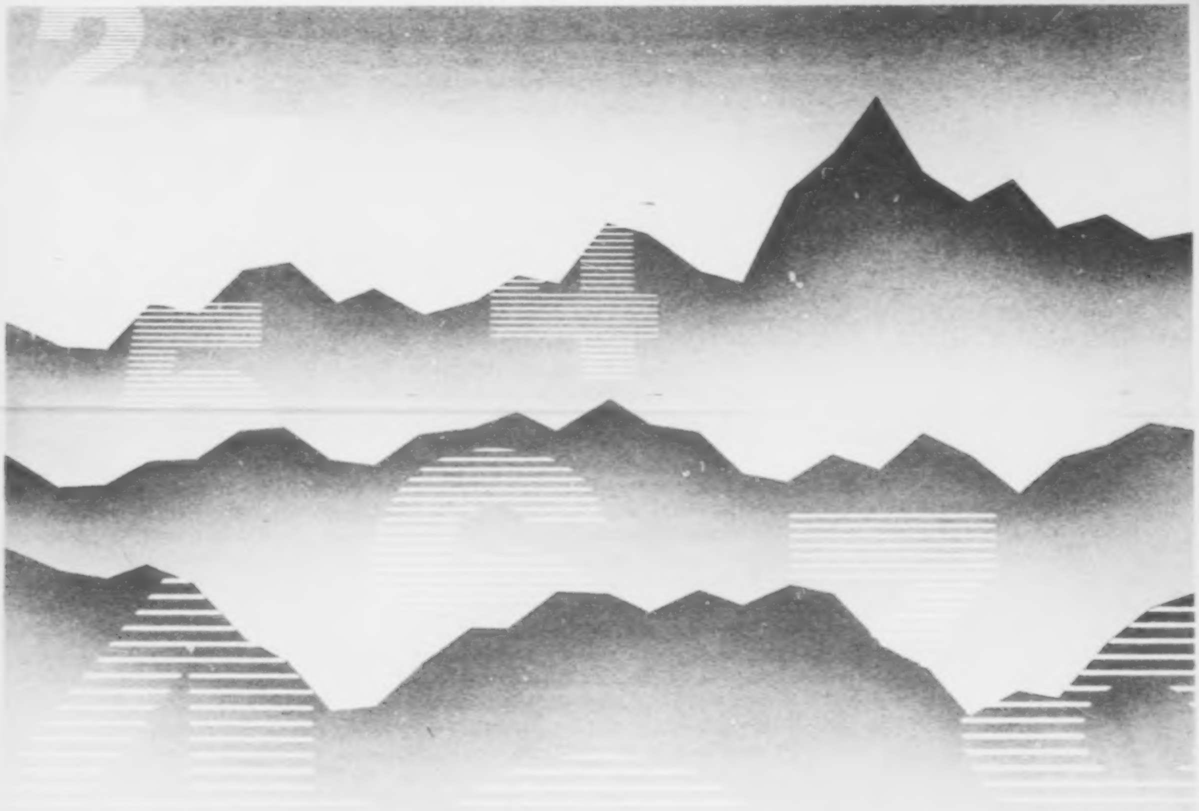

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1991 ANNUAL REPORT

THE ECONOMIC AND BUDGET OUTLOOK:
FISCAL YEARS 1992-1996

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NOTES

Unless otherwise indicated, all years referred to in Chapter I are calendar years and all years in Chapters II through V are fiscal years.

Unemployment rates throughout the report are calculated on the basis of the civilian labor force.

Details in the text and tables of this report may not add to totals because of rounding.

Figures showing periods of recession (indicated by a shaded area) reflect the peak and trough of the recession.

The Balanced Budget and Emergency Deficit Control Act of 1985 (commonly known as Gramm-Rudman-Hollings) is also referred to in this volume more briefly as the Balanced Budget Act. This act was amended by the Omnibus Budget Reconciliation Act of 1990, referred to in this volume as OBRA or the reconciliation act.

PREFACE

This volume is one of a series of reports on the state of the economy and the budget issued periodically by the Congressional Budget Office (CBO). It satisfies the requirements of sections 202(f) and 308(c) of the Congressional Budget Act of 1974 to submit an annual report to the Committees on the Budget with respect to fiscal policy and to provide five-year baseline projections for the federal budget. It also satisfies the requirement of section 254(d) of the Budget Enforcement Act of 1990 to provide a sequestration preview report regarding the status of the discretionary spending limits, pay-as-you-go requirements, and maximum deficit targets based on laws enacted through January 30, 1991. In accordance with CBO's mandate to provide objective and impartial analysis, the report contains no recommendations.

The analysis of the economic outlook presented in Chapter I was prepared by the Fiscal Analysis Division under the direction of Frederick C. Ribe, Robert A. Dennis, and John F. Peterson. Matthew Salomon wrote the chapter, and Robert Arnold and John F. Peterson carried out the forecast that is described therein. Background analysis was carried out by Trevor Alleyne, Victoria Farrell, Douglas R Hamilton, George Iden, Kim Kowalewski, Joyce Manchester, Angelo Mascaro, Frank S. Russek, Jr., John Sturrock, and Stephan S Thurman. Research assistance was provided by Dan Covitz, Nicholas Dugan, Thomas Steinbach, and Patricia Wahl.

The baseline outlay projections were prepared by the staff of the Budget Analysis Division under the supervision of James L. Blum, C.G. Nuckols, Michael Miller, Charles Seagrave, Robert Sunshine, and Paul N. Van de Water. The revenue estimates were prepared by the staff of the Tax Analysis Division under the direction of Rosemary D. Marcuss and Kathleen M. O'Connell. Chapters II and III were written by Paul N. Van de Water, who also prepared the summary of the report. Chapter IV was written by Kathy A. Ruffing, and Chapter V was written by Rosemary D. Marcuss and Kathleen M. O'Connell. The appendixes were written by Paul Van de Water (Appendix A), Eugene Bryton and Michael Miller (Appendix B), David Elkes (Appendix C), and Richard Krop (Appendix D). Gail Del Balzo and John Sturrock prepared the glossary.

Paul L. Houts supervised the editing and production of the report. Major portions were edited by Amanda Balestrieri, Sheila Harty, Francis S. Pierce, and Sherry Snyder. Nancy H. Brooks provided editorial support during production. The authors owe special thanks to Marion Curry, Janice Johnson, Dorothy Kornegay, Verlinda Lewis, L. Rae Roy, and Simone Thomas, who typed the many drafts. With the assistance of Martina Wojak, Kathryn Quattrone prepared the report for publication.

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Director

January 1991

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SUMMARY

The downturn in the economy and record outlays required to resolve failed banks and savings and loans will push the federal deficit near $300 billion in 1991. Not included in this estimate, but sure to add to it, are the costs of Operation Desert Storm. After 1991, as these factors begin to fade and as the savings from last year's budget agreement grow, the budgetary picture should brighten. By 1995, assuming that the new legal limits on discretionary spending are maintained, the Congressional Budget Office (CBO) projects that the total federal deficit will fall below $100 billion for the first time in 15 years and below 1 percent of gross national product (GNP) for the first time in 20 years.

CBO's budget projections assume that the U.S. economy is now in a brief recession, which will continue into the spring. After that, the prospects for a solid recovery with low inflation are good. Real GNP is projected to be flat in 1991 (on a year-over-year basis) and to grow by about 3 percent a year in 1992 through 1996.

THE BUDGET OUTLOOK

The Omnibus Budget Reconciliation Act of 1990, enacted late last year, included a record of nearly $500 billion in deficit reduction measures over the 1991-1995 period. The Budget Enforcement Act (Title XIII of the reconciliation act) established dollar limits on discretionary spending, a pay-as-you-go provision for most mandatory spending and revenues, and procedures to enforce these requirements. Although the Budget Enforcement Act does not contain fixed deficit targets, as were previously set in law, the spending cuts and tax increases contained in the reconciliation act should set the deficit on a downward trend after 1991.

Deficit Projections for 1991-1996

The budget baseline has traditionally been used to show what would happen if current budgetary policies were continued without change. For tax revenues and entitlement spending, the baseline generally assumes that laws now on the statute books will continue. For defense, international, and domestic discretionary spending, the projections are based on the most recent appropriations, increased only to keep pace with inflation. Under baseline assumptions, the deficit in 1992 would be the same as in 1991--$298 billion, or about 5 percent of GNP. The projected baseline deficit drops to $128 billion in 1995 but turns up slightly in 1996, when $14 billion in spending reductions and tax increases are scheduled to expire (see Summary Table 1).

SUMMARY TABLE 1. CBO DEFICIT PROJECTIONS
(By fiscal year)

	1990	1991	1992	1993	1994	1995	1996
			In Billions of Dollars				
Baseline Total Deficit	220	298	298	239	211	128	135
Assuming Discretionary Spending Limits[a]							
Total deficit	220	298	284	215	160	57	56
Deficit excluding deposit insurance	162	194	186	167	135	103	99
On-budget deficit[b]	277	360	354	294	258	170	185
			As a Percentage of GNP				
Baseline Total Deficit	4.1	5.3	5.0	3.7	3.1	1.8	1.8
Assuming Discretionary Spending Limits[a]							
Total deficit	4.1	5.3	4.7	3.4	2.4	0.8	0.7
Deficit excluding deposit insurance	3.0	3.5	3.1	2.6	2.0	1.4	1.3
On-budget deficit[b]	5.1	6.4	5.9	4.6	3.8	2.3	2.4

SOURCE: Congressional Budget Office.

a. The discretionary spending limits apply only through 1995. The 1996 figures are extrapolations.

b. Social Security and the Postal Service are outside the budget.

The baseline no longer represents current budgetary policy, however, because the dollar limits for discretionary appropriations are below the levels assumed in the baseline. Adhering to these limits will require holding discretionary outlays below baseline levels by an estimated $13 billion in 1992, $22 billion in 1993, $46 billion in 1994, and $62 billion in 1995. Although the statutory caps do not extend beyond 1995, sticking to the caps through 1995 will also produce discretionary savings in 1996, as well as interest savings in all years. Assuming that discretionary spending is held to the caps, the deficit would be $284 billion in 1992, $57 billion in 1995, and $56 billion in 1996. By 1995, the deficit would fall to 1.8 percent of GNP in the baseline and 0.8 percent of GNP if the discretionary spending caps are effective.

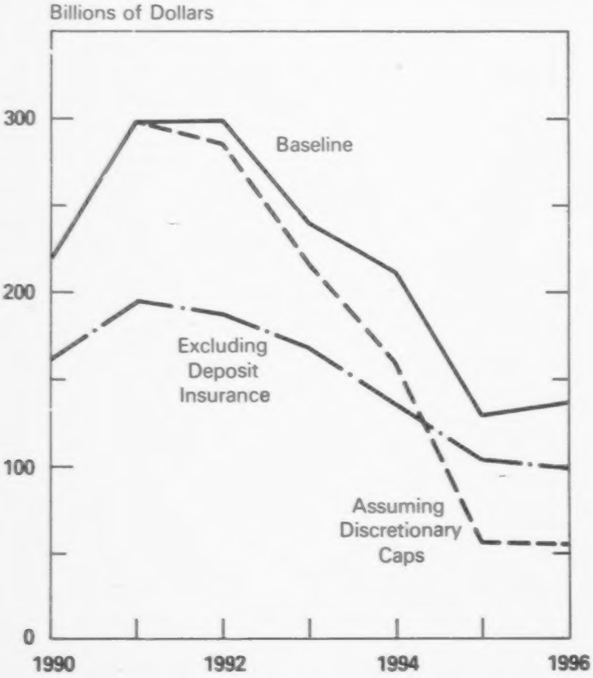
While the total deficit measure discussed above has been the exclusive focus of attention in the past, two other deficit measures are now likely to be considered as well. The first is the deficit excluding deposit insurance spending--the best simple measure of the government's effect on the economy. In both 1991 and 1992, about $100 billion in federal spending will be required to close or subsidize the sale of insolvent savings and loan institutions and banks whose deposits have been insured by the federal government. By 1995 and 1996, however, the federal government's proceeds from selling the assets of failed institutions will cause deposit insurance spending to turn negative. These large year-to-year swings in deposit insurance spending do not represent changes in the federal government's effect on the economy and have little impact on interest rates. Excluding deposit insurance, the federal deficit is projected to rise from $162 billion in 1990 to $194 billion in 1991 and to decline slowly thereafter, as shown in the Summary Figure. In relation to the size of the economy, the deficit excluding deposit insurance declines from 3.5 percent of GNP in 1991 to 1.3 percent of GNP in 1996.

The second deficit measure that will receive attention is the on-budget deficit, which excludes the receipts and outlays of the Postal Service and the two Social Security trust funds. Assuming adherence to the discretionary caps, this on-budget deficit would be $360 billion in 1991, $354 billion in 1992, and $185 billion in 1996. From the standpoint of economic policy, however, the on-budget deficit is not meaningful.

Changes in the Outlook Since July

While the long-term budget picture has improved since CBO's budget report last July, the short-term outlook has worsened considerably. The deficit reduction measures contained in the 1990 reconciliation act will be overshadowed for several years by a worsening of the economic outlook, higher deposit insurance spending, and other factors. As indicated in Summary Table 2, CBO estimates that the policies in the 1990 budget agreement will reduce the deficit by $33 billion in 1991, $69 billion in 1992, and $160 billion in 1995, compared with CBO's

Summary Figure. Deficit Projections



SOURCE: Congressional Budget Office.

NOTE: The projections include Social Security and the Postal Service, which are off-budget.

July baseline. Over the 1991-1995 period, the package saves an estimated $482 billion--$264 billion from spending cuts, $158 billion from tax increases, and $59 billion in resulting savings on debt service.

For the next several years, however, changes in economic assumptions and other factors overwhelm the policy changes. CBO's new economic assumptions have increased the projected deficit by $50 billion in 1991, $63 billion in 1992, and $79 billion in 1995. These figures reflect both the current recession, which is temporary, and what appears to be a reduction in the economy's potential rate of growth.

SUMMARY TABLE 2. CHANGES IN CBO DEFICIT PROJECTIONS SINCE JULY (By fiscal year, in billions of dollars)

	1991	1992	1993	1994	1995	Cumulative Five-Year Changes
July Baseline	232	238	196	145	138	n.a.
Changes						
Policy changes						
Revenues	-18	-33	-32	-37	-39	-158
Entitlements and other mandatory spending	-9	-12	-16	-19	-19	-75
Enacted appropriations	-6	-6	-9	-12	-13	-46
Required reductions in discretionary spending	n.a.	-13	-22	-46	-62	-144
Debt service savings	-1	-4	-10	-17	-27	-59
Subtotal	-33	-69	-89	-131	-160	-482
Economic assumptions	50	63	63	70	79	n.a.
Technical reestimates						
Deposit insurance	23	20	7	32	-44	n.a.
Other	26	30	36	42	43	n.a.
Subtotal	49	50	43	74	-1	n.a.
Credit reform	0	2	3	2	a	n.a.
Total Changes	66	46	19	15	-81	n.a.
Current Estimate Assuming Discretionary Spending Limits	298	284	215	160	57	n.a.

SOURCE: Congressional Budget Office.

NOTES: The projections include Social Security and the Postal Service, which are off-budget.

n.a. = not applicable.

a. Less than $500 million.

Changes in CBO's technical estimating assumptions have increased the projected deficits by an average of more than $50 billion per year in 1991 through 1994, but have reduced the deficit slightly in 1995. This pattern mirrors the changes in deposit insurance estimates, which average $20 billion higher in 1991 through 1994, but are $44 billion lower in 1995. In addition to upping the estimated short-run costs of the thrift bailout, CBO has substantially increased estimated spending in 1991 to deal with insolvent banks. CBO also projects faster growth in spending for Medicare and Medicaid. Other technical reestimates affect a wide variety of revenue sources and spending programs and add significantly to the costs of debt service.

THE ECONOMIC OUTLOOK

CBO believes that the U.S. economy has slipped into its ninth recession of the postwar period. Although the economic outlook is extraordinarily uncertain, this recession will probably be milder than the average downturn and will end by midyear. Several factors contribute to the likelihood of a relatively short recession:

- Inventories are relatively low compared with sales, and reductions in orders are therefore less likely than in previous recessions.
- Real exports are expected to remain strong as a result of the dollar's decline and a healthy growth in foreign demand.
- The war in the Persian Gulf is not likely to generate large disruptions in oil supplies.
- Inflation is lower than at the onset of earlier recessions, thereby permitting a further easing of monetary policy.

Forecast for 1991 and 1992

CBO's economic forecast incorporates a decline in economic activity in the fourth quarter of 1990 and the first quarter of 1991. Between the fourth quarters of 1990 and 1991, real GNP is projected to grow by about 1½ percent (see Summary Table 3). Because the recession will expand the gap between actual production and the economy's capacity,

SUMMARY TABLE 3. COMPARISON OF CBO AND *BLUE CHIP* SHORT-RUN ECONOMIC FORECASTS

	Estimated 1990	Forecast 1991	Forecast 1992
Fourth Quarter to Fourth Quarter (Percentage change)			
Real GNP			
CBO	0.2	1.3	3.4
Blue Chip	0.2	0.9	2.8
Implicit GNP Deflator			
CBO	4.4	4.1	3.6
Blue Chip	4.5	4.0	3.6
Consumer Price Index (CPI-U)[a]			
CBO	6.1	4.0	3.5
Blue Chip	6.2	4.1	4.0
Calendar-Year Averages (Percent)			
Civilian Unemployment Rate			
CBO	5.5	6.8	6.4
Blue Chip	5.5	6.5	6.3
Three-Month Treasury Bill Rate			
CBO	7.5	6.6	7.0
Blue Chip	7.5	6.3	6.5
Ten-Year Treasury Note Rate			
CBO	8.6	7.9	7.7
Blue Chip	8.6	7.8	8.0

SOURCES: Congressional Budget Office; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators* (January 10, 1991); Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics.

a. CPI-U is the consumer price index for all urban consumers.

b. *Blue Chip* does not project a 10-year note rate. The values shown here are based on the *Blue Chip* projection of the Aaa bond rate, adjusted by CBO to reflect the estimated spread between Aaa bonds and 10-year Treasury notes.

higher growth will mark the recovery, as the economy catches up to its potential. For 1992, the growth rate is expected to rise to about 3½ percent.

The pain of a recession, however, will produce the traditional benefits of reduced inflation and lower long-term interest rates. The inflation rate is likely to remain between 3 percent and 4 percent on a sustained basis--significantly lower than it was during most of the 1980s. The interest rate on 10-year Treasury notes, which averaged 8.6 percent in 1990, is expected to fall to 7.9 percent in 1991 and remain low. Short-term interest rates should remain relatively low in the near term as the Federal Reserve continues to relax monetary policy, but will rebound as the economy recovers.

Projections for 1993-1996

CBO does not try to forecast short-term fluctuations in the economy more than two years into the future. Instead, for the 1993-1996 period, CBO makes projections based on trends in variables such as labor supply, productivity, and saving rates. CBO projects that potential GNP will grow on average by about 2¼ percent a year. This projection, which is slightly lower than CBO's estimates of last summer, reflects the July revisions to the national income accounts, which suggest that productivity has been growing more slowly in recent years than earlier reports had indicated. The projection of potential output also takes account of the expected slowing in the growth of the labor force, as well as the increase in the capital stock that will stem from reductions in the federal deficit. Real GNP is projected to grow at an average rate of 2.8 percent over the 1993-1996 period to close the gap between actual and potential GNP opened up by the recession (see Summary Table 4).

CBO's long-run projections of interest rates are set by reference to the historical pattern of interest rates and increases in national wealth. The reduction in the federal deficit will increase saving and capital formation, but increased European capital demands will offset the resulting downward pressure on interest rates. As a result, CBO projects real short-term interest rates in the mid-1990s of about 2 percent, and real long-term rates about 1½ percentage points higher.

SUMMARY TABLE 4. MEDIUM-TERM ECONOMIC PROJECTIONS FOR CALENDAR YEARS 1993 THROUGH 1996

	Estimated	Forecast		Projected			
	1990	1991	1992	1993	1994	1995	1996
Nominal GNP (Billions of dollars)	5,467	5,700	6,107	6,505	6,919	7,358	7,824
Nominal GNP (Percentage change)	5.1	4.3	7.1	6.5	6.4	6.3	6.3
Real GNP (Percentage change)	0.9	0.0	3.3	2.9	2.8	2.7	2.7
Implicit GNP Deflator (Percentage change)	4.2	4.3	3.7	3.5	3.5	3.5	3.5
Fixed-Weighted GNP Price Index (Percentage change)	4.6	4.6	3.8	3.8	3.8	3.8	3.8
CPI-U (Percentage change)	5.4	4.9	3.5	3.6	3.6	3.6	3.6
Unemployment Rate (Percent)	5.5	6.8	6.4	6.2	6.0	5.8	5.6
Three-Month Treasury Bill Rate (Percent)	7.5	6.6	7.0	6.7	6.3	5.9	5.7
Ten-Year Treasury Note Rate (Percent)	8.6	7.9	7.7	7.6	7.4	7.3	7.2

SOURCE: Congressional Budget Office.

NOTE: CPI-U is the consumer price index for all urban consumers.

CONCLUSION

CBO's economic forecast is slightly more optimistic than the current *Blue Chip* average, as Summary Table 3 shows. The 50 or so individual forecasts that make up the average, however, are more widely dispersed than normal, reflecting the unusual uncertainty prevailing today. Military and political analysts cannot foretell the course of the war or the shape of the postwar Middle East. Similarly, economists are notoriously poor at predicting the path of the economy near turning points in the business cycle. In addition, there is a good deal of uncertainty about whether banks and other financial institutions are in a position to extend sufficient credit to the rest of the U.S. economy.

Fortunately, the Budget Enforcement Act has partly insulated the budget process from these unpredictable factors. It adjusts the deficit targets for economic and technical changes and no longer promises to balance the budget by a certain date. It exempts deposit insurance spending from the requirement that increases in mandatory spending be offset by other spending cuts or tax increases. And it exempts emergency spending--such as the cost of operations in the Persian Gulf--from the discretionary spending limits and pay-as-you-go requirements. If fiscal policy is kept on its current course, the deficit should shrink significantly in a few years, even if it suffers further reverses in the meantime.

CHAPTER I

THE ECONOMIC OUTLOOK

The U.S. economy has apparently fallen into its ninth recession of the postwar era. Although the outlook is highly uncertain, the Congressional Budget Office (CBO) expects this recession to be one of the shortest in the postwar period, and anticipates a period of moderate expansion with significantly reduced inflation to begin before midyear.

Several factors are responsible for the slowdown of the U.S. economy. Faced with the necessity of pursuing several critical goals at once while beset with shifting statistics, oil shocks, and political developments, the Federal Reserve held interest rates at relatively high levels in 1989 and early 1990. Unavoidably, such high interest rates slowed economic growth and increased the risks that other developments could push the economy into recession. The crisis in the Persian Gulf was a critical blow in knocking the economy over the edge, since it reduced real incomes, raised interest rates, and weakened consumer confidence. Finally, the spreading problems in the financial sector may have helped cause the recession, since they have somewhat reduced the availability of credit.

With the data regarding the onset of the recession still in preliminary form, the current economic outlook is highly uncertain. A more severe recession could still occur, particularly if there is another adverse shock. As of mid-January, the Gulf crisis remains unresolved, and how pervasively credit is being tightened is not yet clear. Given this uncertainty, CBO has developed two alternative scenarios in addition to its forecast. These alternatives, which embody different sets of assumptions giving rise to higher and lower near-term growth, are intended to be illustrative, not exhaustive; they do not purport to encompass the whole range of possible near-term conditions.

RECENT ECONOMIC DEVELOPMENTS

After nearly eight years of growth, the U.S. economy appears to have slipped into recession in the second half of 1990. Some slowing was foreseen at the start of 1990 as the Federal Reserve pressed on with its tight monetary policy into a fourth year. By midyear, however, the slowdown had clearly spread even beyond the sectors most sensitive to interest rates. As concern about the economy grew, Iraq invaded Kuwait and oil prices doubled. Now, in mid-January, uncertainty abounds: the Gulf crisis remains unresolved, weaknesses are still emerging in the banking sector, and the changes in Europe's economic structure continue to unfold. Still, in the absence of another large shock, the recession will probably not be severe.

Fiscal policy, including the recently enacted Omnibus Budget Reconciliation Act (also referred to here as the reconciliation act) and the spending for military operations in the Gulf, will not be significantly stimulative over the near term. As a result, any efforts to moderate the severity of the recession will depend on monetary policy. The Federal Reserve has so far responded to the slowdown in a controlled and gradual way. Financial markets clearly expect further easing in the coming months, and the Federal Reserve, because of its conservative stance since 1987, is well-positioned to ease rates further. However, if the incipient credit crunch becomes more widespread or if events in the Persian Gulf lead to highly adverse consequences, the Federal Reserve's strategy of measured response may prove to be insufficient.

The Slowdown So Far

The U.S. economy slowed markedly in the second half of 1990. Economic performance in the first half of 1990 was much the same as it had been in the latter half of 1989: very slow real growth coupled with a relatively stable underlying rate of inflation. Already evident by midyear were signs that the slowing in economic activity would spread beyond the sectors that tight money most directly affected--housing, consumer durable goods, and construction of office buildings. But as the Gulf crisis unfolded, the deterioration snowballed as consumer and business confidence plunged in the wake of the Iraqi invasion. Nevertheless, the current slowdown differs from previous postwar downturns in several significant respects that, on balance, suggest that the slowdown is likely to be only a mild recession.

The Slow Second Half of 1990. The first unmistakable signs of the economic decline appeared in the *employment* data: total nonfarm payroll employment declined in each of the last six months of 1990. By December, the civilian unemployment rate had risen to 6.1 percent, well above the 5.3 percent level that, for the most part, had prevailed from mid-1989 through mid-1990.

What distinguished the decline in employment in the latter half of 1990 was the weakness in service-sector employment. Employment in manufacturing had already been declining for more than a year by mid-1990; by the year's end, these declines had quickened and spread to most manufacturing industries. By late 1990, however, the weak demand for labor in service-producing industries was also pervasive, though not as deep as in manufacturing. Employment in wholesale and retail trade, as well as in finance and real estate services, was either stagnant or declining over the second half of 1990.

Weakness in *personal income and consumption* reflected the declines in employment. Even though consumer confidence plummeted in August as a result of the Iraqi invasion, expenditures for real personal consumption only began declining in October, when real disposable personal income fell sharply.

As for the near-term *investment* data, they are bleak. Housing and private nonresidential construction have been depressed for more than a year, and current low sales rates, high vacancy rates, and falling real estate prices imply that they will remain so for some time to come. Also weak in the last quarter of 1990 was growth in investment in producers' durable equipment. Furthermore, the outlook for the near term remains dim. This weakness is reflected in a falling off in new orders for nondefense capital goods and the Commerce Department's October-November survey of capital expenditure plans, which indicates that businesses are planning to expand real plant and equipment investment by a meager 0.4 percent in 1991. However, even this estimate may be optimistic because declines in planned capital expenditures reported to the survey tend to lag behind declines in overall activity.

With *government purchases* of goods and services in the near term already trimmed by budget cuts of previous years, the only major encouraging sign in current demand appears in exports. Largely because of the weakness of the dollar since mid-1989, growth in *real exports* has recently accelerated. The recent high rate of growth in exports should continue well into 1991, as the effects of the dollar's recent declines are felt more fully.

Perspectives on the Slowdown. Several characteristics of the current state of the U.S. economy augur that the current recession will be mild Relative to some previous cyclical downturns, the economy currently has:

- Lower inventory stocks relative to sales;
- Higher growth in demand for exports;
- A larger service-producing sector relative to total demand; and
- Lower inflation rates than prevailed during the previous three recessions.

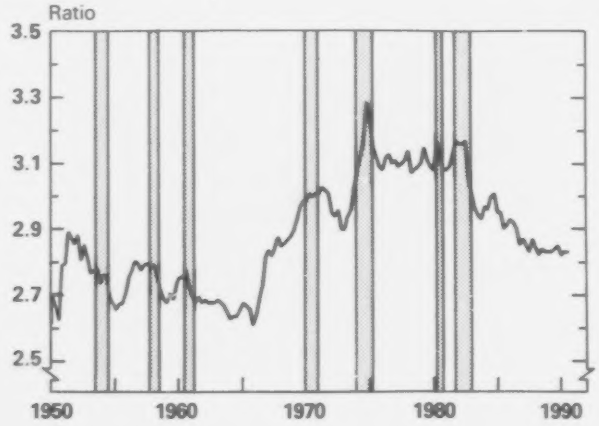
Inventory stocks did not rise at the beginning of the recession--a good sign of resilience (see Figure I-1). In previous recessions, an early slowing of sales was matched by a sharp increase in inventories; these inventories had to be worked off through lower production later. Declines in inventory investment typically account for a substantial portion of the decline in gross national product (GNP) during recessions. The recent stability of the inventory-sales ratio, however, suggests that inventories are under control and that a large downward adjustment in inventories may not occur this time. Analysts attribute the low current level of inventories to the Federal Reserve's long-standing policy of slowing economic growth, which put businesses on alert to keep their inventories under control.

In contrast to the weakness in domestic demand, growth in *real exports* is currently robust (see Figure I-2). As was mentioned above, the recent strength in real exports is the result of the dollar's decline over the last year and of the relatively hardy, but slowing, growth in foreign demand. Growth in net exports will mitigate the declines in domestic demand, while growth in imports slows because of depressed domestic incomes. These conditions were not present in the last cyclical downturn, which occurred during a period when the dollar appreciated and there was a simultaneous worldwide recession.

The *service-producing* sector has contributed an increasing share of total income and employment over the postwar period, which should also help keep this recession mild. In particular, the service-sector share of total private employment has risen from 64.2 percent in 1979 to 72.8 percent in 1990. Because the service sector is less cyclically sensitive than the goods-producing industries, the greater role of services implies that the decline in income could be milder than was the case in previous downturns.

Finally, the underlying *rate of inflation*, which has been reasonably stable since 1983, is currently lower than it was during the last three recessions. In each of these earlier recessions--which include the

Figure I-1. Inventory-Sales Ratio



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

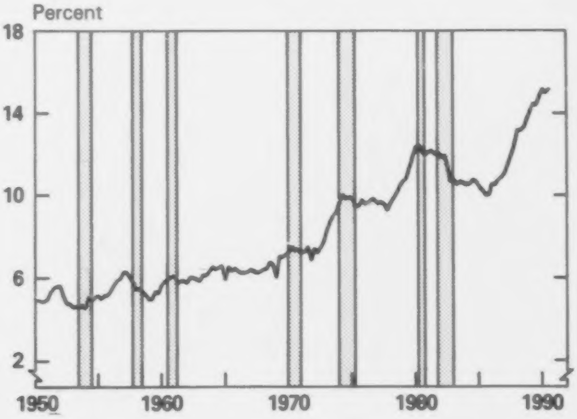
NOTE: Nonfarm inventories and sales are in 1982 dollars.

two deepest downturns of the postwar period--the downturn was largely brought on by a rapid switch from an expansionary to a restrictive monetary policy, a switch that was intended to reduce double-digit inflation rates. This degree of inflationary pressure is not present in the current slowdown. Moreover, the stance of monetary policy is different, having been restrictive from early 1987 to mid-1990. The Federal Reserve has not been in the position of having to slow monetary growth rapidly--and exacerbate the economic slowdown--as it did in earlier downturns.

The Effects of the Gulf Crisis on the U.S. Economy

Iraq's invasion of Kuwait and the subsequent worldwide trade embargo with these two countries have markedly contributed to the economic slowdown. By raising oil prices sharply, the crisis has reduced disposable incomes, increased inflation and interest rates, and depressed consumer confidence. Occurring at a time when concerns over an economic slowdown were already growing, soaring oil prices evoked unpleasant memories of the protracted economic stagnation that followed the oil crises of 1973-1974 and 1979-1980. Although oil prices dropped some of the way back to their pre-invasion levels in recent

Figure I-2.
Exports as a Share of GNP



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

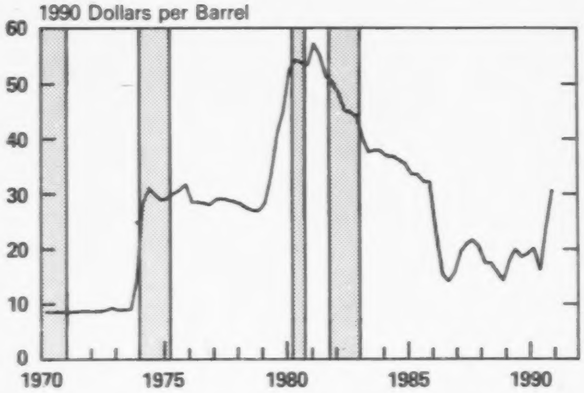
NOTE: Exports and GNP data are in 1982 dollars.

months, and then to below these levels in the first days of the conflict, anxiety still lingered. CBO's estimates suggest that the onset of the Gulf crisis reduced real GNP, and increased inflation and interest rates significantly, helping to precipitate the current recession.

At the time of this writing, the Gulf crisis is not yet resolved and considerable uncertainty prevails. Still, the macroeconomic repercussions of the current crisis are not likely to be as severe as those of the earlier supply disruptions for two reasons: the price increase from the Iraq-Kuwait crisis is much smaller than the earlier oil price shocks, and the United States and other oil-importing countries are better prepared today for disruptions in oil supplies than was true earlier. Nonetheless, developments in the Gulf could affect the depth and duration of the U.S. economic slowdown for better or worse: a quick resolution of the Gulf crisis would allow oil prices to fall, but a protracted war could cause prices to rise.

The Price Shock Is Relatively Small. For two reasons, the current Gulf crisis has altered available world oil supplies to a far smaller extent than did the two earlier crises: the primary loss in supply was smaller, and the price shock was quickly mitigated by expanded production and a drop in demand as a result of mild weather and the slowing economy. The worldwide boycott of Iraq-Kuwait oil reduced available world crude supplies by about 4.3 million barrels per day (mmbd), which is only a small part of the world production of more than 60 mmbd. Moreover, this shortfall hit at a time when producers with the Organization of Petroleum Exporting Countries (OPEC) carried considerable excess production capacity and domestic crude stocks were relatively high. Soon after the crisis began, Saudi Arabia, Venezuela, and other oil-exporting nations stepped up petroleum production and more than made up for the original supply shortfall. Also, there was no speculative buildup in world stocks of crude petroleum, which were already ample in late July. This contrasts sharply with the behavior of inven-

Figure I-3.
Real Oil Prices



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Energy, Energy Information Administration.

NOTE: Refiners' acquisition cost of crude oil deflated by fixed-weighted GNP price index reindexed to 1990 = 1.0. Fourth-quarter 1990 value estimated by CBO.

tories during the earlier oil disruptions when, driven by speculative motives, inventories increased sharply and helped keep prices up longer.[1]

As a result of the combination of all of these factors, oil prices spiked, but the spike was small when compared with the two earlier major oil crises, particularly for countries whose currencies have appreciated against the dollar (see Figure I-3). Oil prices were $16 to $20 per barrel before the invasion and rose as high as $38 per barrel two months into the crisis, declining to about $25 per barrel at the beginning of 1991. In real terms, the spike was much smaller than was experienced during either the 1973-1974 or the 1979-1980 crisis. The current increase in oil prices is only about half the size of the 1979-1980 increase, and less than two-thirds the size of the 1973-1974 increase. Moreover, each of the earlier price increases persisted for more than a year.

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[1] See Richard Farmer, "Understanding the Volatility of Oil Prices During the Iraq-Kuwait Crisis," CBO Staff Memorandum (January 1991).

The effects of the August price shock on overall inflation appear to be over. The spike in oil prices produced a corresponding spike in consumer prices: the consumer price index (CPI) rose sharply through the August-October period but was followed by smaller advances in November and December as the energy component of the price index declined. Prices for alternative energy sources did not rise commensurately with crude oil prices, and this has helped to temper the impact on consumer prices to date.

World Economies Are Generally Better Prepared. The current crisis is not likely to cause long-term stagnation for another reason: the U.S. economy and the economies of other industrialized oil-importing countries are more energy efficient and less dependent on oil today than they were earlier. The structural changes in the United States and other oil-importing countries that were inspired by the 1973-1974 OPEC crisis and were reinforced by the 1979-1980 supply disruption make these nations less vulnerable to the longer-term consequences of further shocks in oil prices.

Since the earlier crises, oil conservation has improved; industries have increased their ability to substitute other fuels for oil when necessary; strategic oil reserves exist; and oil price controls, which often discouraged production, have eroded. Since 1973, overall energy efficiency increased substantially worldwide: by about a third in the United States and Europe and by more than 40 percent in Japan. Moreover, the efficiency with which oil is used increased even more. These diminished vulnerabilities to oil price shocks largely result from technological substitutions of less energy-intensive and oil-intensive methods of production.[2]

In the United States, another structural factor has played a role in mitigating the impact of rising oil prices: the current reliance on markets to allocate petroleum and petroleum products rather than the complex and distorting rationing and allocation rules that were used in the past. Whereas the oil shocks of the 1970s produced long lines at gasoline stations and panic hoarding by consumers and producers able to do so, the current oil shock has not led to any such behavior.

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[2] These technological changes also lowered potential output in the earlier crises. The macroeconomic impacts of changes in oil prices are discussed in greater detail in Robert Dennis and Matthew Salomon, "Effects of the Recent Oil Price Rise on the Economy," CBO Staff Memorandum (September 1990).

Near-Term Risks Remain. Although the economy is better prepared to absorb oil price swings without the severe long-term consequences that stemmed from the earlier crises, the economy is not immune to the near-term costs of a further disruption of supplies in the Gulf.

As of this writing, oil prices are about $20 per barrel, considerably lower than the post-invasion peaks and roughly similar to what prices were before Iraq invaded Kuwait. While oil prices have fluctuated in response to alternating waves of optimism and pessimism about developments in the Gulf crisis, prices for future petroleum deliveries have remained consistently below those for immediate delivery. For the most part, these lower future prices reflect expectations of favorable oil market fundamentals in the longer run. But because oil-exporting nations used their excess capacity, less oil is available to buffer further disruptions over the very near term.

OPEC is currently working to rebuild surplus capacity, and falling demand has helped the inventory situation. But a large supply disruption in the near future would have to be made up by further lowering demand, reducing inventories (possibly including releases of strategic reserves), and increasing the output of higher-cost producers.

Foreign Economic Developments

The expansion of world trade and the integration of world capital markets have made the U.S. economy increasingly sensitive to economic and policy developments in foreign countries. In 1990, the economic effects of developments abroad were mixed: some factors helped slow the U.S. economy, such as the rises in interest rates caused by the unification of Germany and developments in Japan, and the torpid growth in Canada and the United Kingdom. These slowing effects were partially offset, however, by strong economic growth in western Germany and the appreciation of the Deutsche Mark, both of which have helped strengthen U.S. exports.

Some weakening in world economies is expected for 1991. The United Kingdom, Canada, and Australia now appear to be in recession, and the economies of several other European countries have slowed down. But the strong demands generated by German unification and a resilient Japanese economy should produce a respectable world growth rate in 1991. Other major U.S. trading partners that should grow rapidly in 1991 include Mexico, where real growth is speeding up in response to economic reforms, and the newly industrializing countries of Asia, where, on average, real growth should be even stronger than it is in Japan. These sources of foreign economic growth, combined with the exchange rate effects of tight monetary policies in both Germany and Japan, bode well for U.S. exports.

Developments in Europe. Europe's economic structure is undergoing a revolution, provoked by the changing economic system in Eastern Europe, the unification of Germany, and by the move toward a single market in Western Europe. All of these developments have increased growth and capital demands in Europe, and help to increase the level of world interest rates.

While the economic collapse of most of the Eastern European countries limits their potential impact on world markets, German unification has been and promises to be a major factor. Unification has proven immediately beneficial to the western part of Germany: western Germany posted a striking 6.8 percent annual rate of real growth in the third quarter of 1990, as a result of sharply increased sales of consumer and investment goods to the eastern part of the country. (German statistics do not yet include eastern Germany, but production there has certainly fallen sharply.) At the same time, the estimated budgetary costs of unification have grown as the extent of economic deterioration in eastern Germany has turned out to be much greater than anticipated. Together with the demands for funds to modernize industry in eastern Germany, these developments add up to an expectation of enormous capital demands that should increase world interest rates and further strengthen the Deutsche Mark.

CBO has estimated that the capital demands of German unification could push up world interest rates by between 0.2 and 1.0 percentage points, with the larger impact occurring if the German government does not find a politically acceptable way to increase taxes and therefore has to continue to rely on issuing debt to finance capital demands.[3] Most likely, a significant part of this upward pressure on interest rates has already been felt.

The move toward a common market in Europe also makes Europe more attractive for investment, and thus could put additional pressure on world capital markets and long-term interest rates. If the increased tax revenues from higher European growth (the fiscal dividend) finance either tax cuts or higher spending, CBO estimates that world long-term rates could rise by more than 0.5 percentage points.[4] But another outcome is possible: if European governments instead use the fiscal dividend to reduce their borrowing, world interest rates might not rise and could even fall.

Led by the Bundesbank of Germany, European central banks have responded to these developments by maintaining their fight against inflationary pressures, rather than accommodating the increased capital demands. As a result, Europe now finds itself in a position similar to that of the United States in the early 1980s, with strong credit demands confronting a relatively tight monetary policy. Just as this situation in the United States drove up the dollar in the early 1980s, this same combination of strong credit demands and tight money in Europe has led to strong European currencies. As a result, the dollar has dropped 9.2 percent against the Deutsche Mark since mid-1990.

Developments in Japan. Japanese interest rates climbed and the yen appreciated sharply against the dollar in 1990, a chaotic year for Japan's financial markets. By year's end, the Bank of Japan had completed its second year of fighting wage and price inflation and precariously high land values with a policy of monetary restraint. Equity prices had plunged more than 40 percent from their levels of December 1989. Japanese banks, which hold a substantial portion of assets in large, land-backed loans, cut lending sharply and sold dollar-denominated securities. In spite of these convulsions in Japan's financial markets, the Japanese economy is estimated to have grown more than 5½ percent in 1990--the largest advance among the industrialized nations.

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[3] Congressional Budget Office, *How the Economic Transformations in Europe Will Affect the United States* (December 1990), Chapter IV.

[4] Ibid., Chapter II.

Most analysts expect that tight money and credit conditions will persist and that Japanese economic growth will slow. Nevertheless, Japanese growth should remain higher than most other national growth rates.

Developments in Canada and the United Kingdom. Unlike continental Europe and Japan, the major English-speaking economies are already in or are entering recession. Canada's downturn began in the second quarter of 1990, while that in the United Kingdom apparently started in the third quarter. According to many analysts, neither economy is likely to begin a sustained recovery before mid-1991.

In both Canada and the United Kingdom, monetary policies are tight in order to maintain currency values and limit inflation. Moreover, in both economies this monetary tightness played a major role in bringing on recession, though other factors also played a role. The United Kingdom is anxious to maintain currency values so as to support sterling's position in the European Monetary System, a policy that is regarded as the keystone of the government's anti-inflation policy. Despite this policy, inflation remains high, even after allowing for the temporary effects of the spike in oil prices.

In Canada, monetary authorities have kept interest rates high so as to support the value of the Canadian dollar against the U.S. dollar. Canada's large budget deficit and political uncertainty surrounding the future of the confederation have also helped to raise interest rates. Although both the United Kingdom and Canada are oil exporters and thus were less severely affected by the Gulf crisis than oil-consuming countries, the spike in oil prices may have further weakened their economies by reducing disposable consumer incomes.

Economic Effects of the Omnibus Budget Reconciliation Act of 1990

With the passage of the Omnibus Budget Reconciliation Act of 1990, the federal government has embarked on a new course of long-term

BOX I-1
The Recession Provisions of the Balanced Budget Act

The Balanced Budget and Emergency Deficit Control Act of 1985, as amended by last fall's Omnibus Budget Reconciliation Act, contains special provisions that allow important parts of the act's deficit reduction requirements to be suspended in the event of a recession or extraordinarily slow economic growth. However, these provisions are not automatic. They require explicit action by the Congress and approval by the President.

The slow-growth provisions are triggered when either the Congressional Budget Office (CBO) or the Office of Management and Budget (OMB) projects real economic growth to be less than zero, or when the Commerce Department reports an actual growth rate of less than 1 percent, for two consecutive quarters. If any of these triggering events occurs, CBO must notify the Congress. Both CBO and OMB now project at least two quarters of negative growth, and CBO sent the obligatory letter to the Congress on January 23. As a result of this notification, the Senate was required to consider promptly a resolution suspending certain requirements of the Balanced Budget Act and other laws. In the House, however, the Majority Leader was free to choose whether or not to introduce a similar resolution. In any case, the Congress and the Administration will almost certainly have to revisit this issue in April, when, for the first time, the Commerce Department will report on actual economic growth for both the fourth quarter of 1990 and the first quarter of 1991.

The main effect of the passage of such a resolution and its approval by the President would be to rule out any automatic cuts in spending as a means of enforcing the reconciliation act's current ceilings on different categories of appropriated spending, on mandatory spending, and on overall deficits (see Chapter II for a detailed description of these ceilings). A resolution would also end the right to block consideration of any bill that would violate the ceilings in an adopted budget resolution or the committee allocations flowing from that resolution. The suspension period would last until the first fiscal year beginning at least 12 months after the resolution is enacted. Thus, a suspension resolution adopted this winter or spring would stay in effect until October 1992 (the start of fiscal year 1993). Practically speaking, this would obviate the ceilings on spending and deficits that the reconciliation act imposes for fiscal years 1991 and 1992, unless subsequent legislation were to supersede the resolution.

The slow-growth provisions are intended to keep budgetary policy from accentuating an economic downturn. Reducing the underlying or "structural" budget deficit, as the Balanced Budget Act is intended to do, risks making economic activity weaker than it would have been in the short term by raising taxes and reducing federal demands for goods and services. Having some provision for avoiding this effect can be particularly important if the recession seems likely to be severe. Since the depth of a recession is extremely hard to forecast, some analysts would argue that an early cancellation of ill-timed contractionary fiscal policies is appropriate.

Not all analysts, however, believe that suspending the reconciliation act's targets is advisable. They argue that the expenses of military operations in the Gulf, which are already outside the discipline of the act, may mean that the federal budget will exert little if any contractionary impact on the economy this year, notwithstanding the act's targets. Moreover, these analysts argue that suspending the targets for two full fiscal years would leave little of the longer-term deficit-reducing effect of recent legislation intact. The nation would probably have to begin again the painful process of negotiation and consensus-building that preceded passage of the recent amendments to the act in order to accomplish the long-term reductions in the deficit that most policymakers consider to be necessary.

In the meantime, interest rates could rise if financial markets developed renewed doubts about the likelihood that deficits will ultimately be reduced. Moreover, some analysts argue that budgetary policy measures to bring about a recovery from the recession would probably come too late and do little good. The economic effects of any such measures might be felt during a period when the recovery is already well under way.

fiscal restraint. If the act's targets are met, it will reduce the deficit by nearly $500 billion over the 1991-1995 period and (excluding spending for deposit insurance) to 1.3 percent of GNP by 1996, the smallest percentage in 20 years. Over the next several years and beyond, this reduction in the federal government's use of scarce national saving will tend to improve GNP's potential rate of growth, the trade deficit, and real long-term interest rates. Smaller federal deficits should ultimately help improve living standards, the nation's competitiveness, and its ability to withstand the problems that could be brought about by the retirement of the baby-boom generation. The remaining chapters of this report discuss the reconciliation act in more detail.

Short-Term Impacts of the Budget on Aggregate Demand. What will be the effect of the reconciliation act on the economy? Although adherence to the terms of the act will help the economy in the medium term, the cuts in spending and the increases in taxes that it involves could temporarily weaken the economy in 1991. (For this reason, the Balanced Budget Act gives the Congress and the Administration the power to suspend the act's deficit reduction targets in the event of a recession--see Box I-1 on page 14.) But other budget developments, discussed below, imply that, overall, little significant restrictive effect from the budget is likely.

In order to judge the contribution of the federal budget to short-term changes in GNP, economists conventionally look to specialized analytic measures of the stance of fiscal policy such as those shown in Table I-1. (Note that these measures exclude the effects of deposit insurance.) One such measure is the change in the standardized-employment deficit, a measure that strips the deficit of changes resulting from economic fluctuations in order to isolate the effects of discretionary policy actions.

As Table I-1 shows, the standardized-employment deficit falls by $22 billion between fiscal years 1990 and 1991. This fall largely reflects the $33 billion by which the reconciliation act is estimated to reduce the budget deficit in 1991 from the level it would otherwise have reached. Another measure of discretionary fiscal policy, the standardized-employment deficit excluding interest payments, falls by $37 billion, also reflecting the fiscal restraint of the reconciliation act.

TABLE I-1. THE FISCAL POLICY OUTLOOK (By fiscal year, on a budget basis, excluding deposit insurance)

	1989	1990	1991	1992	1993	1994	1995	1996
Measures of Discretionary Fiscal Policy and Measures Relevant to Short-Run Effects on Aggregate Demand (Billions of dollars)								
Total Budget Deficit	131	162	194	186	167	135	103	99
Standardized-employment deficit	140	149	127	122	116	94	73	81
Cyclical deficit	-8	13	67	64	51	41	30	18
Total Inflation-Adjusted Budget Deficit[a]	51	69	98	94	74	33	0	-10
Budgetary Impact of Omnibus Reconciliation Act	n.a.	n.a.	-33	-69	-89	-131	-160	n.a.
Standardized-Employment Deficit Excluding Interest Payments	-29	-34	-71	-85	-103	-133	-157	-152
Measures Relevant to Effects on Long-Run Economic Growth (Percentage of GNP)								
Total Budget Deficit	2.6	3.0	3.5	3.1	2.6	2.0	1.4	1.3
Publicly Held Federal Debt[b]	42.2	43.1	44.6	44.6	44.5	43.9	42.8	41.5
Memoranda: (Billions of dollars)								
Deposit Insurance	22	58	103	98	48	25	-47	-42
Potential Nominal GNP	5,108	5,457	5,826	6,178	6,544	6,926	7,329	7,755

SOURCE: Congressional Budget Office.

NOTES: All measures of fiscal policy reflect the spending caps in the Omnibus Budget Reconciliation Act of 1990, but exclude outlays for deposit insurance. The 1991 deficit numbers include $7.5 billion in outlays for the Persian Gulf deployment, which is exactly offset by $7.5 billion in contributions from U.S. allies.

n.a. = not applicable.

a. Total budget deficit excluding effect of inflation in reducing real value of publicly held federal debt.

b. Excludes federal debt incurred for payments of deposit insurance.

Several factors, however, at least partially offset the fiscal restraint shown in the table. The first factor is the extra spending for military operations in the Gulf, which is not fully reflected in Table I-1. As Chapter IV points out. considerable uncertainty surrounds these incremental costs. Still, these expenditures seem likely to exceed the $7.5 billion that are included in CBO's baseline budget estimates. Recent estimates suggest that the incremental costs in fiscal year 1991 of the deployment of forces to the Gulf region and their engagement in hostilities could exceed, possibly by a good deal, $17 billion.[5] Involvement after the hostilities have ceased could push up the costs.

Not all of the costs will result in spending in 1991. But a substantial share of the spending that does occur could stimulate the U.S. economy, since it is likely to be spent on goods and services produced in the United States. Moreover, to the extent that payments from foreign governments match these expenditures, the fiscal stimulus would be larger, even though such payments would reduce the budget deficit. This increased fiscal stimulus takes place because government spending that is not matched by increased taxes or borrowing stimulates the private economy more than spending that is so matched.[6]

A second factor--the effect of the reconciliation act on expectations--somewhat offsets the economic effects of the fiscal restraint in the act. The act is a landmark, multiyear measure that should work to reduce interest and exchange rates by holding out the realistic prospect of significantly lower federal credit demands over at least the next several years. To the extent that the act succeeds in convincing participants in financial markets that federal credit demands will fall, it should lead to declines in interest and exchange rates. These declines in turn can stimulate investment, exports, and other types of spending that are sensitive to these rates. Resulting increases in private-sector spending will help offset the fiscal restraint that might otherwise emanate from the act. Participants in financial markets will no doubt require more time to judge the full effectiveness of the act in reducing federal borrowing. (Chapter II summarizes the act's provisions to enforce its limits on spending and deficits.)

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[5] Congressional Budget Office, "Costs of Operation Desert Shield," CBO Staff Memorandum (January 1991).

[6] At present, expenditures for military operations in the Gulf do not affect CBO's baseline estimates of the deficit or the measures shown in Table I-1 because assumed payments from foreign governments exactly match the assumed $7.5 billion in incremental outlays.

A final factor that helps cushion the contractionary effects of the reconciliation act is the action of the "cyclical" deficit--the amount by which the deficit is increased because GNP falls below its potential. Cyclical increases in the deficit, such as those shown in Table I-1, come about as a result of economic weakening because taxable incomes fall and transfer payments such as unemployment insurance increase. These cyclical responses, which are often called automatic stabilizers, ensure that disposable consumer income falls less than it would have otherwise. Consequently, these automatic stabilizers cushion the economic decline.

Cyclical increases account for the rise in the overall budget deficit (excluding payments for deposit insurance), from $162 billion in 1990 to $194 billion in 1991. These cyclical increases also explain the slightly smaller rise from $69 billion to $98 billion in another analytic measure shown in Table I-1: the total deficit adjusted for inflation. This measure excludes from the deficit the amount by which inflation has reduced the real value of the outstanding federal debt in a given year. Some economists favor this measure of the overall short-term economic impact of the deficit, since the impact of inflation in reducing the real value of the debt detracts from the wealth of holders of federal bonds and offsets some of the stimulative impact that an increase in the federal deficit might otherwise exert.

Outlays for deposit insurance are excluded from the fiscal measures in Table I-1 because they do not have significant direct economic effects. These outlays do not increase the wealth or incomes of those who receive them, as do most other federal outlays. Instead, they liquidate a federal obligation that already existed--the federal liability to guarantee the deposits of insolvent institutions. Most analysts agree that the economic effects of federal obligations for deposit insurance occur primarily at earlier stages, such as when the financial institution's losses first occur, creating the insurance losses now being recognized.

Moreover, federal borrowing to finance outlays for deposit insurance does not have significant direct effects on credit markets. These outlays are quite likely to give rise to new lending that offsets the absorption of credit that initially comes about because of the added federal borrowing. Outlays for deposit insurance are paid to individuals and institutions that are apt to reinvest them in financial markets, returning these funds to the pool available to private-sector borrowers.

Medium-Term Economic Implications of the Reconciliation Act. Beyond the next couple of years, the reconciliation act brightens prospects for economic growth. As Table I-1 shows, CBO projects that the federal deficit (excluding deposit insurance) will fall sharply in relation to GNP, assuming that the provisions of the reconciliation act are met. This reduction in the federal government's use of the saving contributed by other parts of the economy helps account for a significant increase in CBO's projection of the rate of net national saving, as the discussion later in this chapter shows. Other indicators of longer-term effects of the federal budget also show improvement. The ratio of the publicly held federal debt to GNP (excluding the debt incurred for deposit insurance payments) falls from 44.6 percent in 1991 to 41.5 percent in 1996. This fall suggests that there will be more room in nonfederal holdings of wealth for more productive assets, such as investments in business capital.

Monetary Policy, Inflation, the Dollar, and Financial Market Risks

Monetary policy slowed economic growth in 1990, but the policy cannot be judged from a short-term perspective alone. The primary goal of the monetary policy of 1990 was to promote noninflationary growth in the long run. The Federal Reserve, especially through the first half of the year, continued to stress the goal of lowering inflation, and therefore it continued the relatively tight monetary actions that have prevailed since 1987. But the Federal Reserve faced an extraordinary number of complications in managing monetary policy in 1990.

Several complications were the result of developments outside the United States. The sharp increase in oil prices that stemmed from Iraq's invasion of Kuwait set off an increase in inflation, complicating the central bank's job in controlling inflation. In addition, rising interest rates abroad pressured the Federal Reserve to keep U.S. rates high or risk seeing inflows of funds from abroad contract sharply. Such a contraction could have severely disrupted the domestic economy, and could have caused the dollar to fall more sharply than it did.

Still another complication that beset the Federal Reserve during the summer and fall was the need to coordinate its policy with progress in the protracted negotiations between the Administration and the Congress over measures to reduce the budget deficit. One of the chief objectives of the negotiations was to facilitate lower interest rates, in part by satisfying the Federal Reserve that the federal deficit would finally decline after staying at high levels for years. The negotiations took longer than expected, and at times their ultimate success was in doubt. In this climate of uncertainty, the Federal Reserve's reluctance to reduce interest rates significantly was understandable.

Policies that promote the goal of noninflationary growth in the long run increase the risk of recession in the short run. In the first half of 1990, the perceived recessionary risk of these policies seemed relatively low--the underlying economic growth rate for recent quarters had been reported to be a relatively healthy 2.5 percent. Between early July and the end of the year, however, a number of events raised the risk of recession sharply. In late July, the Commerce Department released revised estimates of real growth for 1989 and early 1990 that were much lower; these lower growth rates implied that the economy would be less resilient to any negative short-run shocks than was previously thought.

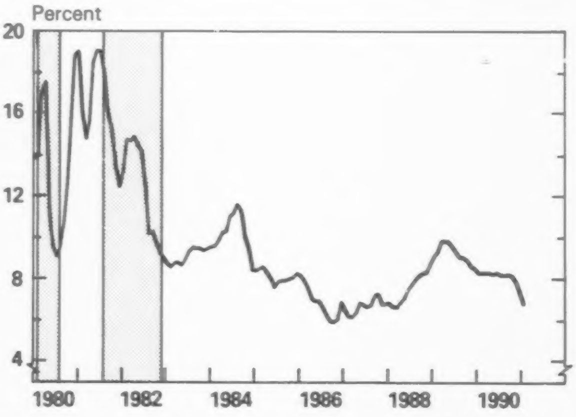
The Federal Reserve responded to the initial signs of economic slowing by easing its tight monetary policy in mid-1990. Five easing actions by the central bank in the second half of the year--including changes in reserve requirements and the discount rate--brought the federal funds rate more than a full percentage point below its late-June level by mid-January (see Figure I-4). Financial markets apparently expect more easing in coming months, and, as the economy weakens, the Federal Reserve is likely to ease further.

Because it has maintained a tight monetary policy over a long period, the Federal Reserve is not under pressure to rapidly restrict money growth at the first sign of stronger growth. Instead, the Federal Reserve is in a favorable position to offset the severity of the current recession with gradual and controlled easing without abandoning its anti-inflationary stance. Inflationary pressures should diminish as overall growth declines and as the dollar remains low.

However, the weak banking sector presents a major risk for monetary policy in the current recession. A further deterioration in credit conditions is possible if real estate prices continue to fall: banks whose loan portfolios are sensitive to weakness in real estate markets would deteriorate further, restrict credit, and, ultimately, may even fail. Such developments would undermine the Federal Reserve's strategy of maintaining its anti-inflationary stance by only gradual easing interest rates through the recession.

Recent Inflation. Most of the recent volatility in consumer prices was related to energy and has already started to dissipate (see Figure I-5). There is little evidence that the underlying rate of inflation will remain above the 4 percent to 5 percent range that has persisted since

Figure I-4.
Federal Funds Rate



SOURCES: Congressional Budget Office; Federal Reserve Board.

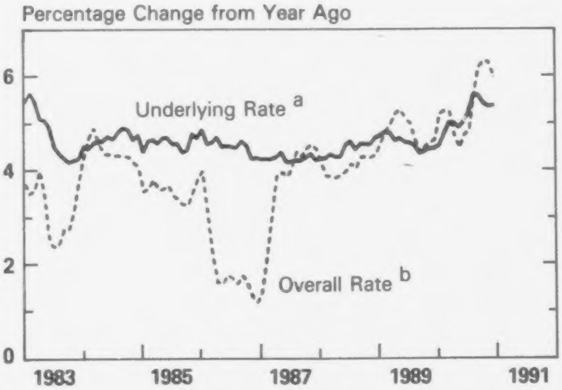
NOTE: CBO estimates the January 1991 value of the federal funds rate to be 6.75 percent.

1983. The rapid increase in the underlying rate of consumer price inflation in early 1990 stemmed largely from an inexplicable advance in the homeowners' cost component of the consumer price index, but it has since receded. Unless new inflationary shocks hit, the rising unemployment rate and declining factory operating rates should keep prices soft.

While recent increases in federal excise taxes should raise prices in the first months of 1991, the increase in the rate of inflation will probably be small and temporary. In addition, prices are expected to rise temporarily in early 1991 as a result of the adverse effects of the recent freeze on California's citrus crop.

The Dollar. The exchange value of the dollar dropped sharply in 1990 because world interest rates rose as U.S. interest rates fell (see Figure I-6). Apart from the fluctuations resulting from fears of war, the dollar has stabilized recently. Tight monetary policies in Japan and Germany, as well as the capital demands generated by European developments, should hold foreign interest rates sufficiently above those in the United States to keep the dollar from strengthening over the forecast horizon.

Figure I-5. Recent Inflation



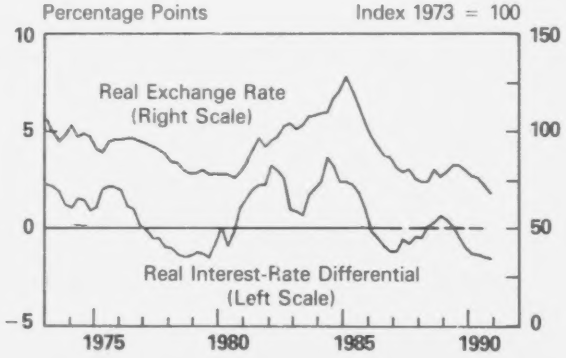
SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

a. Consumer price index for all urban consumers (CPI-U) less food, energy, and used cars.
b. CPI-U.

Financial Market Risks. A number of financial factors have caused economists concern that the current moderate decline could evolve into a severe recession. The factors at issue are the high levels of indebtedness of both corporations and households, and the fragile state of depository institutions.

High corporate debt levels should probably not be a major source of concern, though the debt ratios of nonfinancial corporations have increased sharply in recent years. Three measures of the debt position of business--the ratios of debt to GNP, debt to assets, and interest payments to cash flow--were all high in the 1980s relative to the average of the postwar years. Whether the levels of these ratios indicate that the economy is in a more fragile state is uncertain, however. The ratios have generally trended upward over the years, and a clear relationship does not appear to exist between these ratios and the rate of business failures or the severity of downturns. Some firms are certainly in a weakened state because of the accumulation of debt in the 1980s--the

Figure I-6.
The Exchange Rate and the Interest-Rate Differential



SOURCES: Congressional Budget Office; Federal Reserve Board; International Monetary Fund.

NOTES: The real exchange rate is the level of U.S. consumer prices relative to consumer prices in 10 industrialized countries, weighted by trade shares and adjusted by dollar exchange rates against the currencies of those countries. Its movements are dominated by movements in exchange rates. An increase in the real exchange rate corresponds to dollar appreciation.

The real interest-rate differential is the difference between U.S. real long-term interest rates and an average of foreign real long-term rates weighted by gross domestic product. Real interest rates are nominal long-term rates less expected inflation, estimated by a centered two-year moving average of actual and forecast inflation rates.

retailing industry has been particularly hard hit--but the debt status of nonfinancial businesses in general does not appear likely to turn a mild recession into a severe downturn.

High household debt levels, on the other hand, may pose a larger risk. Household debt has been rising relative to income for many years. Until recently, the growth of household debt was more than matched by the growth of household assets, largely in real estate: this left aggregate household wealth strong despite high debt levels. Although some households were restraining their consumption because of high debt loads, others felt wealthy because of the increase in their assets and they maintained or increased their consumption. More recently, however, the weakness of real estate prices in many parts of the country has undermined household wealth. Because this real estate weakness is an unusual development, it may lead to a more rapid decline in consumption in this recession than has happened in the past.

The troubled *state of depository institutions* could worsen the current recession. The capital position of both banks and thrift institutions has deteriorated in recent years, as loans soured and the value of collateral fell. Hence, these institutions entered the recession in a weakened state. As they seek to build their capital bases, in part because of increased capitalization requirements and regulatory pressure, these institutions may be particularly careful in extending loans, and therefore could cause credit to be strained more severely than CBO currently envisions. An institutional shift in willingness to expand loan portfolios may blunt the Federal Reserve's efforts to temper this credit restraint by encouraging lower interest rates.

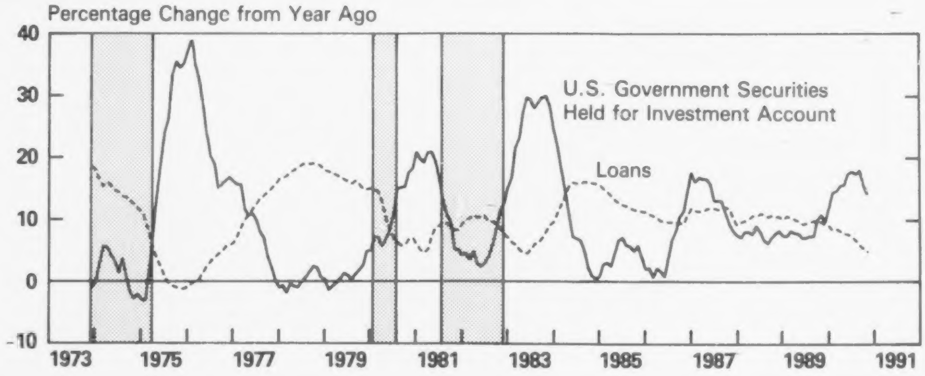
The data available to date do not clearly settle the question of whether current credit market restraint is unusually severe for an economy in recession, but anecdotal evidence of tightened credit is widespread. Many sectors of the economy that are usually affected by a tightening of credit--housing and consumer durable goods, for example--slumped during 1990, and the problems of financial institutions possibly aggravated these declines.

One could, however, also attribute the weakness in these sectors to other factors that are not directly related to financial considerations.

Examples are overbuilding and high vacancy rates in office buildings; slow growth in household real incomes in 1989; and the perception, beginning in 1989, that housing prices were too high, making housing a less attractive investment.

Growth in bank loans slowed markedly last year, but it is impossible to tell how much of this decline was the result of diminished supplies of loanable bank funds and how much stemmed from the slowing of loan demands as the economy weakened (see Figure I-7). One indication that some slowing in credit came from the supply side is that banks increasingly shifted available funds away from loans and into safe government securities. The Federal Reserve Board's monthly Senior Loan Officer Opinion Surveys have suggested that tighter bank credit was more the result of a weaker economic outlook than of regulatory pressure to rebuild capitalization. Nonetheless, the surveys have also indicated that banks were increasingly wary of making even relatively safe loans.

Figure I-7.
Bank Loans and Investment in U.S. Government Securities



SOURCES: Congressional Budget Office; Federal Reserve Board.

Even if the condition of financial institutions has not aggravated the downturn to date, it may worsen the decline this year. Through the 1980s, real estate lending by banks rose to about 23 percent of total bank assets. Hence, any further erosion of property values will also undermine banks. Although many analysts expect the real estate sector to stage a moderate recovery this year, both in prices and in general economic activity, the uncertainty in the near-term outlook for real estate and its importance for banks is an additional risk for the economic forecast.

CBO'S ECONOMIC FORECAST

The recession that apparently started last summer or early in the fall seems likely to continue into the spring, but then the prospects for a moderate recovery appear good. As a result, the recession is expected to last less than the average 12 to 13 months and to be less deep than the average recession, which has involved a 2½ percent drop in real GNP. After the recession, the inflation rate is likely to be significantly lower than it has been during most of the 1980s--down from between 4 percent and 5 percent to between 3 percent and 4 percent on a sustained basis. In other words, the pain of the recession will bring about its traditional benefit of lower inflation. Because the recession will bring production down well below potential output--about 4 percent below at the recession trough--there will be room for higher growth on average in the first part of the 1990s as the economy catches up to its potential.

The Forecast for 1991 and 1992

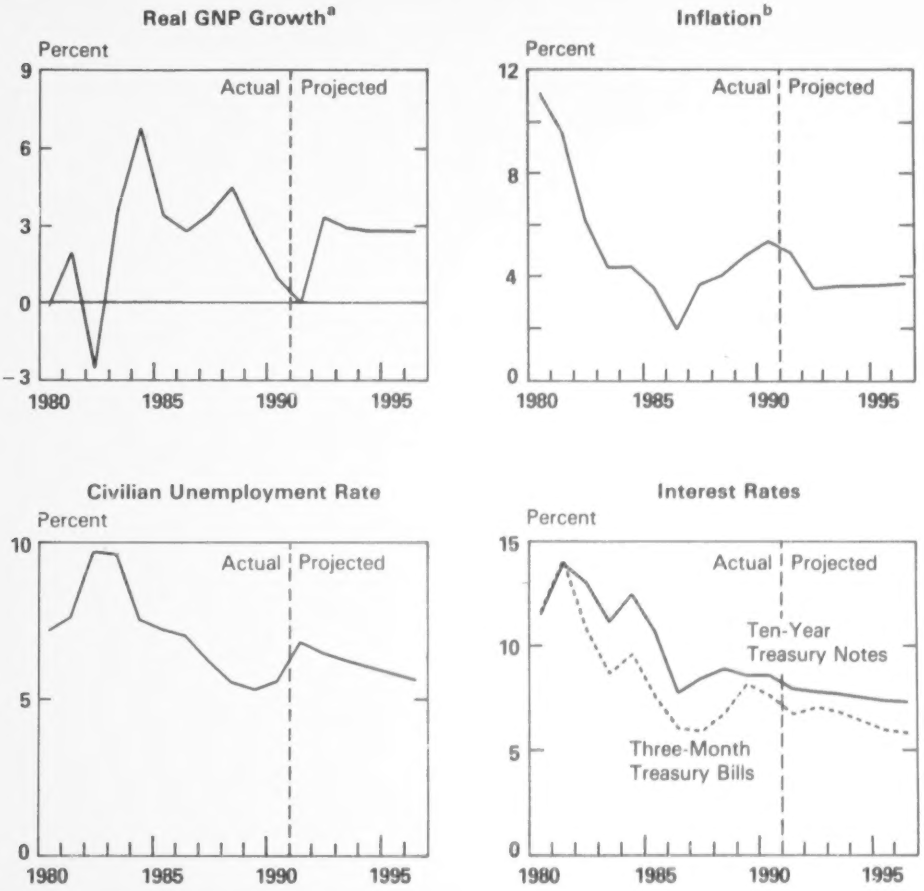
CBO expects real GNP to grow about 1½ percent between the fourth quarters of 1990 and 1991, with a fall in the first half of the year that is more than offset by recovery in the second half (see Table I-2 and Figure I-8). For 1992, the growth rate is expected to rise to about 3½ percent. The CPI rises a little less than 4 percent in 1991, and about 3½ percent in 1992. The recession sharply increases unemployment,

TABLE I-2. CBO FORECAST AND ALTERNATIVES

	Estimated 1990	Forecast 1991	Forecast 1992
Fourth Quarter to Fourth Quarter (Percentage change)			
Nominal GNP			
CBO forecast	4.7	5.5	7.1
High-growth alternative	4.7	5.2	7.0
Low-growth alternative	4.7	2.7	6.9
Real GNP			
CBO forecast	0.2	1.3	3.4
High-growth alternative	0.2	2.2	4.1
Low-growth alternative	0.2	-0.9	4.6
Fixed-Weighted GNP Price Index			
CBO forecast	4.9	4.3	3.8
High-growth alternative	4.9	3.1	3.0
Low-growth alternative	4.9	3.8	2.4
Consumer Price Index			
CBO forecast	6.1	4.0	3.5
High-growth alternative	6.1	3.2	3.3
Low-growth alternative	6.1	4.2	2.0
Calendar-Year Averages (Percent)			
Civilian Unemployment Rate			
CBO forecast	5.5	6.8	6.4
High-growth alternative	5.5	6.5	5.9
Low-growth alternative	5.5	7.3	7.0
Three-Month Treasury Bill Rate			
CBO forecast	7.5	6.6	7.0
High-growth alternative	7.5	6.0	6.2
Low-growth alternative	7.5	5.9	6.0
Ten-Year Treasury Note Rate			
CBO forecast	8.6	7.9	7.7
High-growth alternative	8.6	7.4	7.4
Low-growth alternative	8.6	7.9	7.6

SOURCE: Congressional Budget Office.

Figure I-8.
The Economic Forecast and Projection


Real GNP Growth[a]

Inflation[b]

Civilian Unemployment Rate

Interest Rates

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Federal Reserve Board.

a. The annual value for real GNP growth for 1990 is estimated by CBO.

b. Consumer price index for all urban consumers (CPI-U) from January 1983 to present; before that time, the series incorporates a measure of homeownership conceptually similar to that of the current CPI-U.

which averages 6.8 percent in 1991 before dropping to around 6.4 percent in 1992. Interest rates are likely to be below current levels, as inflationary expectations are dampened and the Federal Reserve shifts its priorities to moderating the recession.

This forecast is made in a climate of extraordinary uncertainty about the economy and about military and diplomatic developments in the Gulf, which also impinge on the economic outlook. Recessions are always difficult times for forecasters, and economists simply do not have a good record of predicting the course of recessions. In the current case, the major domestic uncertainty is whether the financial problems of banks will weaken the economy beyond where it stood at the turn of the year. Compounding the difficulty this time is the situation in the Middle East.

Despite these major uncertainties, CBO had to make assumptions about these matters in order to prepare the forecast. With respect to the domestic economy, it assumed that the banks' credit crunch will not intensify further. With respect to the Middle East, the forecast assumes that the unpredictable situation in this region keeps oil prices at about $25 a barrel and that U.S. military spending is relatively modest. Alternative forecasts that make different assumptions in these respects are discussed later in this chapter.

The Recession and Recovery. The forecast includes only a brief recession, lasting two quarters (the last quarter of 1990 and the first of 1991). The recession is forecast to be relatively mild by historical standards, and to be followed by a moderate recovery beginning in the spring of 1991. Lower interest rates are expected to play a major role in the recovery as they have in previous recoveries. Two other factors are important to this outlook: the likely strength of net exports, and the possibility that the gradual slowing of economic activity that preceded this recession, together with improved inventory control in the 1980s, may mitigate the inventory cycle that plays a large role in intensifying the downturn in most recessions.

The forecast *strength of net exports* is largely the result of the depreciation of the dollar in the second half of 1990, which has made U.S.

goods more competitive in world markets. In addition, though much of the English-speaking world appears to be in recession, other parts of the world--such as continental Europe and particularly Germany--are experiencing an investment boom that should help to support demand for U.S. exports of capital goods. The recession in the United States, together with the budget agreement, will also reduce domestic demand and thus contribute to the forecast's improvement in net exports.

So far, manufacturers and distributors have avoided a sharp inventory accumulation, and CBO's forecast of a *modest inventory cycle* reflects this development. The early stages of most recessions bring undesired increases in inventories, because orders and production do not immediately respond to flagging sales. This means, of course, that production has to be reduced at a later point in the recession to work down the bulging stocks. The current recession, however, has not shown any sign of a sharp buildup of inventories: orders and production have been kept in close step with sales. The increased prevalence of computer-controlled inventories may have played a role, as may have the Federal Reserve's policy of slowing the economy gradually over the past several years, which gave plenty of warning of slower sales.

The Outlook for Inflation. Inflation is likely to fall significantly over the next two years, largely as a result of the recession. Economists often relate the effect of economic weakness on inflation to the cumulative amount by which unemployment exceeds a certain critical rate, known as the NAIRU (for the nonaccelerating inflation rate of unemployment). If unemployment is at the NAIRU, inflation has no strong tendency to either increase or decrease, though it can vary because of such factors as sharp changes in food or fuel prices. If unemployment is below the NAIRU, inflation can be expected to rise. Alternatively, if unemployment is above the critical rate, inflation is likely to fall. While there is some disagreement over where this critical rate is, CBO currently puts it at a little below 5½ percent, falling slightly in the next few years as a result of changes in the demographic composition of the labor force.

Since the level of unemployment is expected to be significantly above the NAIRU for the next two years, the inflation rate is likely to fall. A commonly used rule of thumb says that for every two to three point-years of unemployment above the NAIRU, the inflation rate is reduced by one percentage point. Following this rule, CBO forecasts a decline of one percentage point in the rate of inflation by the end of 1992.

Measures of inflation are also affected by changes in the prices of particular products and services, and by changes in taxation. Oil prices are clearly critical to the forecast. CBO has assumed that they will remain stable in 1991, reducing inflation slightly in contrast to the large boost to inflation experienced in 1990. In the very short term, inflation may also be increased by the freeze in California at the turn of the year and consequent increases in fruit prices. Consumer prices have also been pushed up by two rounds of increases in federal excise taxes--first gasoline taxes in December and then taxes on alcohol, tobacco, luxury items, and other goods in January. These developments will generate a temporary increase in prices but will have no lasting effect on the rate of inflation.

The Outlook for Interest Rates. The recession will cause a further reduction in interest rates in the forecast, as long-term rates fall in response to expectations of lower inflation, and short-term rates ease further as the Federal Reserve continues to relax its monetary policy. The rate on 10-year Treasury notes, which was over 9.0 percent in late April and fell to 8.1 percent in December, is expected to fall about another 0.4 percentage points by midyear. Short-term interest rates have already fallen sharply. The three-month Treasury bill rate fell from 7.8 percent in the first quarter of 1990 to 6.5 percent in December, and is expected to decline further in coming months.

Short-term rates are expected to rebound slightly in the second half of this year and early 1992 as the economy recovers, whereas long-term rates, responding to expectations of lower inflation, will remain low.

Alternative Forecasts. Because of the extraordinary uncertainty of the present economic outlook, the result of the Gulf crisis, the credit crunch, and the inevitable difficulty of forecasting during a recession, it is useful to consider other possible economic scenarios for the next two years. CBO has developed high-growth and low-growth alternative scenarios for 1991 and 1992. These alternatives, which are shown in Table I-2, clearly do not encompass the full range of possible economic outcomes; for example, things could turn out worse than in CBO's low-growth alternative. These scenarios do, however, show the range of possibilities that seem likely.

The low-growth alternative forecast entails a more serious recession than does CBO's forecast, leading to a drop of 2.2 percent in real GNP from its peak to its trough levels over about a year. As a result, real GNP falls for four quarters in this alternative, and the unemployment rate rises to 7.3 percent on average for the year. Because a relatively strong recovery is possible after a deeper recession, growth in real GNP is a relatively high 4.6 percent in 1992. Nevertheless, unemployment remains around 7 percent on average during 1992.

A deeper recession like that in the low-growth alternative could come about for a variety of reasons. The credit crunch could turn out to be more serious than it now seems, a development that would weaken private domestic spending on housing, nonresidential construction, investment in equipment, and consumer purchases of durable goods. In addition, continued instability in the Middle East and in the Soviet Union could lead to unsettled markets for oil, weakness in financial markets, and reduced business and consumer confidence.

The high-growth alternative is a shorter and less severe period of economic weakness, with a stronger recovery, than in CBO's forecast. From peak to trough, the downturn in real GNP totals less than 1 percent in this alternative. Growth in real GNP is a significant 2.2 percent over the four quarters of 1991 and rises above 4 percent in 1992. At 6.5 percent on average during 1991, unemployment is slightly lower than in the forecast, while inflation falls more quickly. Because of the possibility of lower inflation, interest rates are lower in this scenario than in the CBO forecast.

What could bring about such a relatively optimistic outcome? One likely source is low oil prices, stemming from a quick resolution of the Gulf crisis. In generating this scenario, CBO assumed that the Gulf conflict is resolved quickly, and that oil prices fall at least temporarily below $20 per barrel. Another source of such an optimistic outcome is the possibility that the credit crunch turns out to be less of a factor limiting spending in the economy than forecasters now believe. The sharper decline in inflation in this alternative represents the possibility that the effect of recession in slowing the growth of prices could be quite strong, even in a mild downturn.

Comparison with Other Forecasts. The CBO forecast for real GNP is considerably lower than what CBO predicted last July (see Table I-3). That forecast was prepared before Iraq invaded Kuwait, before the July revisions to the national income and product accounts, and before evidence had emerged of the seriousness of the credit crunch. The new forecast differs from the old primarily because of these changes.

The revision in historical estimates of real GNP growth that the Commerce Department published last July cut recent reported growth rates and made it clear that the trend of growth was lower than had previously been thought. Growth in real GNP for 1989 was revised from 3.0 percent to 2.5 percent, growth in real disposable income from 4.0 percent to 2.4 percent, and growth in real consumption from 2.7 percent to 1.9 percent. Growth in nonfarm business productivity was also revised down sharply, from a positive 0.9 percent to a negative 0.7 percent.

Other forecasters have also revised their views since last summer. The *Blue Chip Economic Indicators*, an average of forecasts by 50 economists, has lowered its prediction of growth for 1991 since last summer. The January 1991 *Blue Chip* average forecast for real GNP growth in calendar year 1991 is only slightly lower than CBO's.

The Projections for 1993 Through 1996

CBO does not try to forecast fluctuations in the economy for more than two years. Instead, for 1993 through 1996, it extrapolates recent trends in fundamental economic conditions, such as labor supply, pro-

TABLE I-3. FORECASTS FOR 1991 AND 1992

	Estimated	Forecast	
	1990	1991	1992
Fourth Quarter to Fourth Quarter (Percentage change)			
Nominal GNP			
CBO current forecast	4.7	5.5	7.1
Blue Chip	4.7	4.9	6.6
CBO July 1990 forecast	6.6	6.6	6.5
Real GNP			
CBO current forecast	0.2	1.3	3.4
Blue Chip	0.2	0.9	2.8
CBO July 1990 forecast	2.3	2.5	2.6
Implicit GNP Deflator			
CBO current forecast	4.4	4.1	3.6
Blue Chip	4.5	4.0	3.6
CBO July 1990 forecast	4.3	4.0	3.8
Consumer Price Index[a]			
CBO current forecast	6.1	4.0	3.5
Blue Chip	6.2	4.1	4.0
CBO July 1990 forecast	4.8	4.4	4.1
Calendar-Year Averages (Percent)			
Civilian Unemployment Rate			
CBO current forecast	5.5	6.8	6.4
Blue Chip	5.5	6.5	6.3
CBO July 1990 forecast	5.3	5.4	5.4
Three-Month Treasury Bill Rate			
CBO current forecast	7.5	6.6	7.0
Blue Chip	7.5	6.3	6.5
CBO July 1990 forecast	7.6	6.9	6.7
Ten-Year Treasury Note Rate			
CBO current forecast	8.6	7.9	7.7
Blue Chip[b]	8.6	7.8	8.0
CBO July 1990 forecast	8.5	7.8	7.4

SOURCES: Congressional Budget Office; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators*.

NOTE: The *Blue Chip* forecasts through 1992 are based on a survey of 50 private forecasters, published on January 10, 1991.

a. The consumer price index for all urban consumers (CPI-U).

b. *Blue Chip* does not project a 10-year note rate. The CPI-U values shown here are based on the *Blue Chip* projection of the Aaa bond rate, adjusted by CBO to reflect the estimated spread between Aaa bonds and 10-year Treasury notes.

ductivity, and saving rates. The paths of such variables as GNP, inflation, and interest rates are then projected on the basis of the differences between the levels CBO has forecast for the end of 1992 and the long-run or potential levels that are implied by the projected behavior of fundamental economic conditions.

Growth in Real GNP. CBO projects relatively robust growth in real GNP after 1992 because the recession will leave real GNP well below its potential level at the end of 1992, thereby making a healthy growth rate possible as the economy recovers and resources are more fully used (see Tables I-4 and I-5). This strong growth should occur even though the average rate of growth of potential GNP is now thought to be slightly lower than CBO projected last summer.

CBO has derived its medium-term projection of potential GNP using the framework of a growth model.[8] This model projects the rate of growth of potential output largely through projections of the growth rates of the labor force, the capital stock (which depends on assumed rates of national saving), and productivity. Once potential GNP has been projected using this method, values for real GNP during the 1993-1996 period are developed by assuming that the gap between actual and potential GNP will fall gradually from the relatively large value forecast at the end of 1992 to a historically average level by the end of 1996.

CBO follows the midrange assumptions of the Bureau of Labor Statistics in projecting that growth in the *labor force* will average 1.3 percent over the 1993-1996 period, slower than its average rate of 1.6 percent in the 1980s. The slowdown reflects slower growth in the adult population and in the rate of participation by women in the labor force.

The projection for the *capital stock* depends primarily on national saving (private saving less government borrowing as a share of GNP), which, together with overseas borrowing, determines the rate at

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[8] This model is based on one originally developed by researchers at the Brookings Institution. For a summary description of the CBO growth model, see Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1990-1994* (January 1989), pp. 125-127.

TABLE I-4. MEDIUM-TERM ECONOMIC PROJECTIONS FOR CALENDAR YEARS 1993 THROUGH 1996

	Estimated	Forecast		Projected			
	1990	1991	1992	1993	1994	1995	1996
Nominal GNP (Billions of dollars)	5,467	5,700	6,107	6,505	6,919	7,358	7,824
Nominal GNP (Percentage change)	5.1	4.3	7.1	6.5	6.4	6.3	6.3
Real GNP (Percentage change)	0.9	0.0	3.3	2.9	2.8	2.7	2.7
Implicit GNP Deflator (Percentage change)	4.2	4.3	3.7	3.5	3.5	3.5	3.5
Fixed-Weighted GNP Price Index (Percentage change)	4.6	4.6	3.8	3.8	3.8	3.8	3.8
CPI-U (Percentage change)	5.4	4.9	3.5	3.6	3.6	3.6	3.6
Unemployment Rate (Percent)	5.5	6.8	6.4	6.2	6.0	5.8	5.6
Three-Month Treasury Bill Rate (Percent)	7.5	6.6	7.0	6.7	6.3	5.9	5.7
Ten-Year Treasury Note Rate (Percent)	8.6	7.9	7.7	7.6	7.4	7.3	7.2
Tax Bases (Percentage of GNP)							
Corporate profits	5.5	5.2	5.7	5.5	5.2	5.0	4.9
Other taxable income	22.2	22.3	22.1	22.1	22.0	21.8	21.7
Wage and salary disbursements	49.4	49.4	49.4	49.5	49.6	49.8	49.8
Total	77.2	76.8	77.1	77.1	76.8	76.6	76.4

SOURCE: Congressional Budget Office.

NOTE: CPI-U is the consumer price index for all urban consumers.

TABLE I-5. MEDIUM-TERM ECONOMIC PROJECTIONS FOR FISCAL YEARS 1993 THROUGH 1996

	Actual	Forecast		Projected			
	1990	1991	1992	1993	1994	1995	1996
Nominal GNP (Billions of dollars)	5,406	5,624	6,003	6,405	6,813	7,246	7,705
Nominal GNP (Percentage change)	5.4	4.0	6.7	6.7	6.4	6.4	6.3
Real GNP (Percentage change)	1.3	-0.3	2.8	3.0	2.8	2.8	2.7
Implicit GNP Deflator (Percentage change)	4.0	4.4	3.8	3.6	3.5	3.5	3.5
Fixed-Weighted GNP Price Index (Percentage change)	4.4	4.7	4.0	3.8	3.8	3.8	3.8
CPI-U (Percentage change)	5.0	5.4	3.6	3.6	3.6	3.6	3.6
Unemployment Rate (Percent)	5.4	6.6	6.6	6.3	6.0	5.8	5.6
Three-Month Treasury Bill Rate (Percent)	7.7	6.7	6.9	6.8	6.4	6.0	5.7
Ten-Year Treasury Note Rate (Percent)	8.4	8.0	7.7	7.6	7.5	7.3	7.2
Tax Base (Percentage of GNP)							
Corporate profits	5.5	5.2	5.6	5.6	5.3	5.0	4.9
Other taxable income	22.2	22.3	22.1	22.1	22.0	21.9	21.7
Wage and salary disbursements	49.5	49.4	49.4	49.4	49.6	49.7	49.8
Total	77.2	76.9	77.0	77.1	76.9	76.7	76.4

SOURCE: Congressional Budget Office.

NOTE: CPI-U is the consumer price index for all urban consumers.

which firms invest in plant and equipment. CBO assumes that after the recovery from the recession, net national saving will be larger relative to GNP than it has been during the 1980s, both because of the reduction in federal borrowing relative to GNP and because demographic factors will tend to increase private saving. In the short run, however, saving and investment will be held down by the recession, and this weakness in saving is likely to last long enough so that net saving on average in the first half of the 1990s could be a slightly lower share of GNP than it was during the 1980s. Thus, capital formation is likely to slow somewhat. Nevertheless, because growth in the labor force is expected to decline, capital per worker--a major contributor to labor productivity--is likely to rise slightly.

Last summer's revisions to the data on historical GNP significantly reduced the reported recent growth of *productivity*, leading some private forecasters to be quite pessimistic about prospects for growth in productivity through the mid-1990s.[9] But it would be premature to deduce a lower long-run trend in productivity from only a few years' data, since many factors affect productivity, making it notoriously hard to predict.

Some factors would increase growth in productivity while others would reduce it. One major factor pointing to a higher trend in productivity growth in the next few years is the gradual shift that will take place in the composition of the labor force: there will be fewer young workers and more with greater maturity and experience on average. Alternatively, if the shift from high-productivity manufacturing jobs to lower-productivity service jobs continues, growth in productivity could fall. In light of these and other factors, CBO sees no overwhelming reason why growth in productivity should differ in the 1990s from what it was in the 1980s. CBO therefore assumes that productivity will proceed at the average rate of the 1980s, which happens also to be close to the average rate for the 1960s, 1970s, and 1980s taken together.

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[9] Productivity in this section refers to total factor productivity--a measure of the productivity of both capital and labor. A more comprehensive measure than labor productivity, it is defined as the growth in output above the growth in the capital and labor inputs.

TABLE I-6. GROWTH IN LABOR PRODUCTIVITY IN THE NONFARM BUSINESS SECTOR

Period	Average Annual Growth Rate (Percent)
1950:4 - 1960:2	2.0
1960:2 - 1973:2	2.5
1973:2 - 1981:3	0.6
1981:3 - 1990:3	1.0

SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

This assumption for growth in total factor productivity implies that labor productivity will grow about 1.4 percent a year during the projection period, which is a more rapid pace than in recent years (see Table I-6). Because growth in the amount of capital per worker accelerates, growth in labor productivity is assumed to pick up even though growth in total factor productivity remains steady. The growth in capital per worker should spur growth in labor productivity.

Interest Rates. CBO has based its projection of interest rates for the 1993-1996 period on the projected strengths of both the supply of new saving and the demand for saving during that period. CBO projects that the supply of new saving will rise because of the increase in the U.S. national saving rate that it projects for the next several years. If there were no significant expected changes in the demand for funds, CBO would project on the basis of historical patterns that this rise in national saving would reduce real (inflation-adjusted) long-term interest rates to roughly 3 percent in 1996. Real short-term interest rates would be about 1½ percent, reflecting historical norms in the spread between long-term and short-term rates.[10] Both long- and short-term real interest rates would be projected to decline gradually to these 1996 levels over CBO's projection period.

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[10] CBO has used a proxy measure for national saving: the rate of creation of new wealth as measured by the sum of real net investment and real net exports as a share of real net national product. For a detailed discussion of historical patterns of national saving rates and real interest rates, and of CBO's use of these patterns in projecting real interest rates, see Congressional Budget Office, *The Economic and Budget Outlook: An Update* (July 1990), pp. 27-28.

CBO's current projection of real interest rates in the 1990s is higher than this level, however, because it also takes into account the increased demands for funds that are expected to emanate from Europe. As the discussion earlier in this chapter pointed out, investment needs in that continent, primarily in unified Germany, are likely to draw heavily on the world's supply of funds and help keep interest rates higher than they would otherwise be.

As a result, CBO has projected that interest rates will be higher than the level mentioned above, which is based strictly on the projection of increased national saving in the United States. In particular, CBO has assumed that capital demands in Europe will add about one-half percentage point to real long-term interest rates, leaving them at a level of approximately 3.5 percent in 1996.[11] Reflecting the same historical patterns in the spread between long- and short-term rates that CBO has used before, real short-term interest rates in 1996 are projected at 2.2 percent. Real interest rates in the years before 1996 are projected to decline steadily toward these levels.

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[11] CBO's estimates of how capital needs in Europe will affect world interest rates are described in Congressional Budget Office, *How the Economic Transformations in Europe Will Affect the United States* (December 1990).

CHAPTER II

THE NEW BUDGET PROCESS

On September 30, after almost five months of talks, Congressional and Administration budget negotiators announced an agreement. The summit agreement, as it was called, contained changes in substantive law and budgetary procedures designed to reduce the deficit by a total of $500 billion over five years. When first presented to the House of Representatives in the form of a concurrent resolution on the budget, the summit agreement was voted down. After some modifications, however, a budget resolution was ratified by the House on October 8 and by the Senate the next day.

The budget resolution contained reconciliation instructions directing House and Senate authorizing committees to reduce mandatory spending or increase revenues by a total of $246 billion over the 1991-1995 period. It also provided discretionary spending allocations to the Appropriations Committees in the amounts agreed upon by the summit participants. The Congress moved quickly to implement the budget resolution. In the following three weeks, it completed action on the 13 appropriation bills for fiscal year 1991. And on the weekend of October 27-28, it approved the Omnibus Budget Reconciliation Act of 1990, which contained tax increases, entitlement cuts, and changes in budget enforcement procedures.

The Budget Enforcement Act of 1990 (Title XIII of the reconciliation act) closely follows the procedures outlined in the budget summit agreement. It includes amendments to both the Balanced Budget and Emergency Deficit Control Act of 1985 (commonly known as Gramm-Rudman-Hollings) and the Congressional Budget Act of 1974. The most striking change in the budget process is the elimination of fixed deficit targets. While the deficit is likely to fall significantly between now and 1995 as a result of the spending cuts and tax increases in the reconciliation act, the new version of Gramm-Rudman-Hollings does not guarantee this result, as prior versions purported to do. Instead, it

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attempts to ensure that the hard-won savings enacted in 1990 are not eroded by future changes in law.

This chapter summarizes the new budget process. First, it outlines the rules that will govern the path of spending and revenues. Second, it describes the Congressional procedures that are intended to enforce these rules and the automatic provisions that will be called into play if the Congressional procedures fail. Third, it gives the timetable for the budget process this year. Finally, it considers some of the possible effects of the new budget process on budget outcomes.

This chapter reflects the best current interpretation of the Budget Enforcement Act, but few statements about the new law can be made with complete assurance. The act is long and complicated and was written hurriedly, and most of its provisions have not yet been tested. Practical experience is therefore likely to modify some of the conclusions stated here.

BUDGETARY RULES

The Budget Enforcement Act establishes three major budgetary rules--dollar limits on discretionary spending, a pay-as-you-go requirement for most mandatory spending and revenues, and flexible deficit targets.

Discretionary Spending Limits

Ultimately, almost all federal spending is discretionary. Except for the commitment to pay the interest on the public debt, laws that promise to make specific benefit, grant, subsidy, or other payments can always be changed. Yet, some kinds of spending are more discretionary than others. The spending that is usually termed discretionary is that which is controlled by annual appropriations.

Each year the Appropriations Committees consider and the Congress approves 13 separate appropriation bills. The largest (almost $300 billion) is for defense. The smallest (about $0.5 billion) provides the federal payment to the District of Columbia. The remaining appropriation bills cover foreign operations; the Departments of Labor, Health and Human Services, and Education, and related agencies; the legislative branch; rural development and agriculture; transportation; and the other ongoing operations of the federal government. Each appropriation bill provides specific amounts of budget authority (the authority to make financial obligations) for the agencies and programs within its scope, and that budget authority sooner or later results in outlays (generally, cash disbursements). If the appropriation bills are not enacted by the start of each fiscal year, most government agencies would have to shut down.

The Budget Enforcement Act divides discretionary appropriations into three parts--defense, international, and domestic. For 1991, 1992, and 1993, there are separate budget authority and outlay limits for each of the these three components. For 1994 and 1995, budget authority and outlay caps are set for discretionary spending as a whole. Like most of the other numbers in the Budget Enforcement Act, the discretionary spending limits will be adjusted periodically according to rules specified in law.

The defense discretionary category comprises not only the military activities of the Department of Defense, but also the defense-related functions of other agencies, such as the Department of Energy's nuclear weapons programs. International discretionary spending includes foreign economic and military aid, the activities of the Department of State and the U.S. Information Agency, and international financial programs, such as the Export-Import Bank. Domestic discretionary spending includes science and space, transportation, the environment, social services and education, subsidized housing, veterans' medical care, and the basic executive, legislative, and judicial functions of government.

Adjustments to the discretionary spending limits will be made twice each year--at the beginning and at the end of a session of Congress. This year, the initial adjustments are of two sorts: (1) adjustments for changes in budgetary concepts or definitions made by the Budget Enforcement Act and (2) adjustments for differences between actual and estimated inflation for fiscal year 1990.

After the Congress adjourns, the caps will be adjusted again to reflect any additional amounts appropriated for enforcement activities of the Internal Revenue Service (up to a specified limit), International Monetary Fund quota increases, certain debt forgiveness, or designated emergencies. The law provides that the costs of Operation Desert Shield (now Operation Desert Storm) are to be treated as an emergency need. Other emergencies--for example, a natural disaster--must be designated as such by both the President and the Congress. Since these adjustments are made only after legislation is enacted, they must be made at the end rather than the beginning of a budget cycle.

In addition, at the end of a Congressional session, the international discretionary cap will be increased by about $1.2 billion in budget authority, and the domestic cap will be increased by about $1.5 billion. Because they are calculated as percentages after all the other adjustments have been made, the amounts of these special budget authority allowances cannot be known with certainty until the end of the year, although they can be estimated with reasonable precision.

Outlays are also permitted to exceed the caps by small amounts, as long as the budget authority caps are not breached. Unlike the special budget authority allowances, however, this special outlay allowance is not intended to be spent. It is designed to insulate the legislative process from differences in estimates between CBO (whose estimates are used for Congressional scorekeeping) and the Office of Management and Budget (whose estimates are controlling for the automatic enforcement of the discretionary spending limits).

Mandatory Spending and Revenues

Unlike discretionary appropriations, spending for entitlements and other mandatory programs (also called direct spending) does not require annual decisions on funding levels. Instead, these programs (of which the largest are Social Security, Medicare and Medicaid, and federal civilian and military retirement) continue making payments to eligible recipients unless the Congress changes the underlying laws. Under the new procedures, changes in revenues and most mandatory spending are now required to be deficit-neutral in each year. Special rules apply to Social Security and deposit insurance.

Pay-as-You-Go. The Budget Enforcement Act provides that changes in mandatory spending programs and in governmental receipts combined must not increase the deficit in any year. An entitlement program can be increased only if another entitlement is cut or if taxes or fees are raised. Similarly, a tax can be cut only if another is increased or if entitlement spending is reduced. This requirement, which is termed pay-as-you-go, applies not to each new law individually, but to the total of all laws affecting a fiscal year.

As with discretionary spending, spending for designated emergency needs is exempt from the pay-as-you-go requirement. But that is the only exception. There is no allowance for estimating differences.

Unlike the appropriation caps, however, the pay-as-you-go system does not control federal spending. Rejecting a decade of complaints from some quarters about the growth of entitlement spending, the new law allows entitlements to be increased without limit, as long as the increases are paid for by new taxes or fees.

Social Security. Social Security, the biggest entitlement program, is not subject to the general pay-as-you-go requirement but has its own pay-as-you-go rule.

The Budget Enforcement Act excludes the receipts and spending of the Social Security retirement and disability trust funds from all calculations under the Balanced Budget Act, including the deficit and pay-as-you-go. The intent is to insulate Social Security from whatever adjustments are needed to meet the general budgetary limits. This exclusion, however, removes an impediment to cutting payroll taxes, increasing retirement benefits, or using the Social Security trust funds to finance other programs. Accordingly, the Budget Enforcement Act erects new procedural hurdles to protect the balances in the Social Security trust funds. New House and Senate rules thwart consideration of legislation that would reduce projected Social Security surpluses. In the Senate, waiving this rule requires 60 votes (instead of the 51 votes usually required when all Senators vote).

Deposit Insurance. Spending necessary to meet the government's existing deposit insurance commitments is not limited in any way under the new budget process.

Early in 1991, the Congress will have to provide more money to the Resolution Trust Corporation to allow it to continue its job of resolving hundreds of insolvent savings and loan institutions. The Bank Insurance Fund will also need new resources soon. While legislation will be required in both cases, the changes in law will not represent new spending but merely the recognition of a prior government commitment; therefore, it will be excluded from pay-as-you-go. Additional deposit insurance spending will not need to be offset by tax increases or spending cuts. By the same token, increases in deposit insurance premiums or other resources will not permit non-deposit-insurance spending to be increased.

Deficit Targets

The Budget Enforcement Act revises the previous deficit targets, extends the targets through 1995, and excludes the income and outgo of the Social Security trust funds from the targets. Through at least 1993, however, the deficit targets are irrelevant.

There are two reasons for this. First, the President must adjust the deficit targets for revised economic and technical assumptions, the costs of Operation Desert Storm and other emergency legislation, and other adjustments to the discretionary caps when submitting the budget for fiscal years 1992 and 1993. Whenever these adjustments are made, they will be made for all years through 1995. Second, the economic and technical estimating assumptions used by the Office of Management and Budget in the President's budget must also be used by OMB for all subsequent calculations that year. Therefore, even if the outlook deteriorates after the President's budget is submitted, the deficit targets will be said to have been reached as long as the discretionary spending limits and the pay-as-you-go requirement are met.

The President is also allowed to adjust the deficit targets in the budgets for 1994 and 1995 to reflect up-to-date economic and technical assumptions. Even if he chooses not to exercise this option, he must still revise the deficit targets for adjustments in the discretionary spending limits. If the President opts to adjust the deficit targets fully in 1994 and 1995, the targets will continue to be nonbinding, as in 1992 and 1993. If the targets are not adjusted, and if the discretionary spending limits and pay-as-you-go requirements are met, the deficit targets will be binding only if the economic and technical assumptions used in the 1993 budget (other than for deposit insurance) understated the deficits for 1994 and 1995.

Credit Reform

The Budget Enforcement Act brings federal direct loan and loan guarantee programs within the scope of the discretionary spending limits, pay-as-you-go requirements, and other budget enforcement provisions starting in fiscal year 1992.

Previously, federal credit programs were included in the budget on a cash-flow basis. The disbursement of a direct loan was recorded as a budget outlay, even if future repayments implied that the government incurred little or no long-run cost. Conversely, the receipt of a loan guarantee fee reduced outlays, and spending was not recorded unless and until the loan defaulted. Because of these accounting perversities, a separate credit budget was created to control direct loans and loan guarantees through volume limits. Even so, the volume limits and cash-flow accounting rules distorted budgetary decisions involving federal credit programs.

Henceforth, the government's long-run cost for a direct loan or loan guarantee program will be recorded as a budget outlay at the time the loan is disbursed. This change in accounting, termed credit reform, places direct loans, loan guarantees, and other federal spending programs on the same footing. Credit and noncredit programs with equal costs will be shown as having equal outlays. As a result, discretionary credit programs (those controlled by the Appropriations Committees) will be included in the discretionary spending caps, and appropriate adjustments will be made to the caps so that the Appropriations Committees are not disadvantaged by the accounting change. Similarly, mandatory credit programs will be subject to the pay-as-you-go discipline. A separate credit budget will no longer be necessary.

ENFORCEMENT OF THE RULES

Strengthened Congressional procedures are designed to assure that any new legislation conforms to the discretionary spending limits, pay-as-you-go requirement, and deficit targets, if applicable. If these procedures fail, automatic across-the-board cutbacks (termed sequestration) will do the job.

Congressional Procedures

Each year the Congress adopts a budget resolution, which is a plan to guide its spending and taxing decisions for that Congressional session. The spending total in the budget resolution is divided among committees with jurisdiction over various spending programs, and special procedural rules make it difficult for a committee to exceed its spending allocation. Similarly, the House Ways and Means Committee and the Senate Finance Committee, which have jurisdiction over taxes, are not allowed to propose tax cuts that, if enacted, would cause revenues to fall short of their target.

Before the Budget Enforcement Act, the spending and revenue totals in the Congressional budget resolution were binding only for one year, and committees were not precluded from taking actions in the budget year that increased the deficit in later years. Now, budget resolutions for fiscal years 1992 through 1995 must set forth appropriate spending and revenue levels for both the budget year and the following four years. These five-year budget resolutions will have to comply with the discretionary spending limits, the pay-as-you-go requirement, the deficit targets, and all other requirements of the Balanced Budget Act.

Committees will not be permitted to exceed their spending allocations for both the first year and the total of the five years covered by the budget resolution. In the Senate, waiving this or most other requirements of the Budget Enforcement Act will require a 60-vote majority.

Sequestration

If these Congressional procedures fail, any spending overage will be eliminated through automatic across-the-board cuts, or sequestration. In fact, there are now three potential sequestrations to achieve the three budgetary requirements--discretionary spending limits, pay-as-you-go, and deficit targets. There is no sequestration, however, to enforce the special pay-as-you-go requirement for Social Security.

If defense, international, or domestic discretionary spending exceeds its budget authority or outlay limit, the excess will be eliminated through a cutback in the offending category. A few discretionary programs are exempt, and some health programs are subject to a maximum cut of 2 percent, but most discretionary spending is subject to sequestration. One discretionary spending sequestration has already taken place. Because of a drafting error in the foreign operations appropriation bill, international discretionary spending for 1991 breached the limits by $395 million in budget authority. On November 9, 1990, after the required sequestration reports were released by CBO and OMB, the President issued a sequestration order cutting international discretionary spending by 1.9 percent.

If changes in mandatory spending or receipts increase the deficit in any year, a pay-as-you-go sequestration will be triggered, and mandatory programs would be cut to the extent necessary to eliminate the overage. Unlike discretionary spending, most mandatory spending is not subject to sequestration, and Medicare is subject to a pay-as-you-go reduction of no more than 4 percent. Mandatory spending in 1992 is projected to total $403 billion, excluding Social Security and deposit insurance. The maximum possible sequestration of mandatory progams amounts to only about $26 billion, however, including $11 billion for Commodity Credit Corporation (CCC) farm price supports and $4 billion for Medicare benefits. For a pay-as-you-go sequestration of less than $5 billion, Medicare would bear 80 percent and CCC almost 10 percent of the reductions.

Sequestration to enforce the discretionary spending limits and the pay-as-you-go requirements will assure that there will be no separate sequestration to achieve the deficit targets in 1992 and 1993. The same will be true in 1994 and 1995 if the President opts to adjust the targets for those years for economic and technical changes. Otherwise, a separate deficit sequestration will enforce the 1994 and 1995 deficit targets. If the deficit is projected to exceed the target by more than $15 billion (excluding changes in deposit insurance estimates), spending will be cut by the amount necessary to bring the deficit down to the target. Half of the reductions will be taken from defense and half from nondefense programs.

BUDGET TIMETABLE

The Budget Enforcement Act modifies the budget timetable and adds an additional set of sequestration reports. Much of the old budget process, however, still remains. Key events will occur this year as follows.

January 30--CBO Preview Report

Five days before the President submits his budget message to the Congress, the Congressional Budget Office is required to issue a sequestration preview report. (This year's report is found in Appendix A of this volume.) The preview report contains updated estimates of the maximum deficit amount and of the discretionary spending limits for each category, based on the adjustments specified in law. It also provides an estimate of any net deficit increase or decrease caused by entitlement or revenue legislation enacted since the Budget Enforcement Act. (There is no such legislation so far this year.)

February 4--President's Budget and OMB Preview Report

The President must submit his budget to the Congress between the first Monday in January and the first Monday in February. This year, OMB has announced that the fiscal year 1992 budget will be submitted on February 4, 1991. On that day, OMB must also issue its own sequestration preview report. The OMB report will contain the same information as the CBO report, and OMB is required to explain differences between its estimates and those of CBO. Whatever the differences may be, CBO's estimates will be merely advisory, and OMB's estimates of the discretionary spending limits and deficit targets will be controlling.

The economic and technical estimating assumptions that OMB uses in the President's budget and in its sequestration preview report must also be used by OMB for all subsequent sequestration calculations that year. Under prior law, OMB did not reveal its final estimating assumptions until August 15. This change is intended to make the budget process operate more quickly and smoothly by setting the rules of the game at the start of a Congressional session.

April 15--Congressional Budget Resolution

By mid-April the Congress is supposed to adopt the budget resolution for the coming fiscal year. Although in recent years the Congress has never met and has rarely come close to this deadline, the new budget procedures make it a more realistic goal. For 1992 and 1993, the split among defense, international, and domestic appropriations is largely determined by the discretionary spending caps. The deficit targets, as adjusted, will automatically be achieved if taxes and mandatory spending are left unchanged and the appropriation caps are met. The only major decisions left for the budget resolution are the shape of any pay-as-you-go revenue or entitlement initiative and whether discretionary spending should be held below the legal caps. If the Congress fails to adopt a budget resolution by April 15, the House Committee on Appropriations is given a spending allocation based on the adjusted discretionary spending limits for the upcoming fiscal year.

August 15 and 20--CBO and OMB Sequestration Update Reports

CBO and OMB will issue sequestration update reports in August. These reports will revise the information provided in the preview reports to reflect subsequent legislation. As with the preview reports, OMB issues its report five days after CBO and is required to explain any differences in estimates.

Ten and Fifteen Days After the Congressional Session Ends-- CBO and OMB Final Reports and Possible Sequestration

Previously, sequestration took place on October 15, even if the Congress was still in session, and any increase in the deficit resulting from legislation passed after October 15 was ignored. The new law closes this loophole.

Now, CBO and OMB will issue their final sequestration reports 10 and 15 days, respectively, after the session of Congress ends. If sequestration is required to comply with the discretionary spending limits, the pay-as-you-go requirement, or the deficit target, the Presidential order will be issued 15 days after the end of the session.

During the next session of Congress, enactment of legislation that causes a breach in the discretionary spending limits for fiscal year 1992 will trigger sequestration 15 days later if it occurs before July 1, 1992. If the legislation is enacted after July 1, the applicable spending limits for fiscal year 1993 will be reduced by the amount of the breach in 1992. If tax or entitlement legislation enacted at any time during the next session of Congress increases the 1992 deficit, the amount of the 1992 net increase in the deficit will be added to the deficit increase in 1993. The same provisions will apply to fiscal years 1993 through 1995, as well as to any legislation affecting the 1991 deficit during the remainder of the current fiscal year.

IMPLICATIONS OF THE NEW PROCESS

While the new budget process is undeniably complex, it is more flexible than the old one in some respects, and is likely to be seen as more equitable and more effective. Even though policymakers and the public will chafe at some of its restrictions, the Budget Enforcement Act sets fiscal policy on a favorable course for the next five years.

Flexibility has been added to the process in three ways. First, the Budget Enforcement Act allows for adjustments in the discretionary spending limits and the deficit targets. No longer is there a promise that the budget will be balanced by a certain date, even though that promise is inevitably broken because of unforeseen circumstances. Second, exempting deposit insurance from the pay-as-you-go requirement should remove the incentive to delay the resolution of the savings and loan crisis, which would only increase its long-run cost. A third element of flexibility is the provision that exempts emergency spending from the discretionary spending limits and the pay-as-you-go requirement.

The new discipline will probably be viewed as more equitable for a couple of reasons. For the next five years, sequestration will fall primarily on categories of spending that exceed their limits. Appropriations will not be cut as long as the appropriators stay within the caps. Moreover, at least through 1993, spending programs will not be held hostage to developments that policymakers do not directly control, such as the state of the economy.

The new process is also likely to be more effective than the old, both because of its greater equity and for other reasons. Because the budget horizon will stretch for five years, shifting spending or revenues from one year to another will no longer be readily available as a means of avoiding real deficit reduction. Lease-purchase arrangements and other accounting devices have been limited by the scorekeeping rules appended to the reconciliation act. And credit reform will curb other budgetary gimmicks that have existed since before the Gramm-Rudman-Hollings era.

As outlined above, the Budget Enforcement Act adds many new rules to the budget process while removing some of the old ones. Some of these new constraints will tend to make the budget debate less contentious. But they will also engender new controversies, frustration, and attempts at evasion.

One major issue, the pace at which defense spending should be reduced and how the freed-up funds should be used, will be less important for the next two years. In 1992 and 1993, reductions in defense spending cannot be used to increase the amount available for domestic or international discretionary spending in those years. Holding defense spending below the caps in 1992 and 1993, however, will make it easier to devote a larger portion of discretionary spending to nondefense purposes in 1994 and 1995.

Although mandatory spending cannot be reduced nor taxes increased to fund discretionary programs, this barrier may not be insurmountable. For example, in the area of higher education, some experts have advocated reducing reliance on guaranteed student loans and expanding Pell grants. As long as guaranteed student loans are mandatory and Pell grants are discretionary, such a trade-off is precluded. If Pell grants were made mandatory, however, both programs would fall in the pay-as-you-go category, and the impediment would be removed.

Credit reform will also offer new opportunities for rearranging spending priorities. Under the old cash-based accounting, to continue the previous example, cutbacks in guaranteed student loans generated little immediate budgetary savings. But with credit reform and pay-as-you-go, these savings will be recognized immediately and will become available to spend on another entitlement, such as a restructured Pell grant program.

Other roundabout attempts to increase discretionary spending may also be expected. Some reports have suggested that there will be an incentive to increase fees because they will be treated as an offset to discretionary outlays. But such a frontal assault on the caps may be precluded, because the Budget Enforcement Act specifies that legislation affecting receipts is included in the pay-as-you-go scorecard. It would be possible, however, to enact or increase a fee and simultaneously provide a mandatory appropriation of similar purpose to an existing discretionary appropriation.

Some little-understood aspects of the new process may prove harder to evade. Spending from the highway and airport trust funds, for example, is classified as discretionary, even though the programs have dedicated revenue sources. Highway and airport spending must therefore compete against education, health research, and other programs for scarce room under the domestic discretionary cap, even though the trust funds have large and growing balances. Similarly, further increases in gasoline or airplane ticket taxes will not permit more highway or airport spending.

Unless the 1990 reconciliation act itself is amended, the course of fiscal policy appears to be set for the next five years. Not only did the reconciliation act achieve nearly $500 billion in deficit reduction, but it locks those savings firmly in place. The Budget Enforcement Act precludes changes in law, other than emergency spending, that would add to the projected deficits. As a result, by 1995, the total federal deficit is likely to fall below $100 billion for the first time in 15 years and below 1 percent of gross national product for the first time in 20 years. The next chapter explores the budget outlook through 1996 and shows how it has been affected by the reconciliation act and other recent developments.

CHAPTER III

THE BUDGET OUTLOOK

During its final days, the 101st Congress enacted laws that significantly improved the budget outlook and strengthened the budget process. This legislation reduced the deficit by nearly $500 billion over the 1991-1995 period and established procedures to ensure that these savings are not eroded in the future. Two-thirds of the savings have already been put in place, and one-third remains to be achieved by holding discretionary spending within specified limits. Assuming that the limits on discretionary spending are maintained, the recent budget agreement will reduce the total federal government deficit (including Social Security and the Postal Service) to less than 1 percent of gross national product by 1995 and 1996.

Although the long-term budget outlook is favorable, the federal government faces massive borrowing requirements in the next few years. The Gulf crisis and other developments, as Chapter I has indicated, have halted the eight-year-long economic expansion. The weak economy, problems in the thrift and banking industries, and other factors are likely to raise the total federal deficit from $220 billion in 1990 to nearly $300 billion in 1991 and 1992. The costs of Operation Desert Storm, which cannot be predicted at this time, are not included in these figures and will push the 1991 deficit even higher.

These record deficits, however, are not as onerous as they appear About $100 billion of the 1991 and 1992 deficits will stem from spending needed to resolve insolvent thrift institutions and banks. While the federal government will need to raise these funds through borrowing in the market, the money that the government borrows will be promptly returned to financial markets and will not add much further pressure on interest rates. Excluding deposit insurance, the federal deficit is projected to rise less sharply--from $162 billion in 1990 to $194 billion in 1991 and $186 billion in 1992.

This chapter summarizes the outlook for the federal budget under the policies of the budget agreement and the CBO economic forecast and assumptions described in Chapter I. First, it projects the deficit through 1996, distinguishing between baseline projections and those that assume the new limits on discretionary spending, and analyzing changes since last summer. The following section attempts to sort out competing, and often confusing, measures of the federal deficit. Finally, the effect of the economy on the budget is illustrated using rules of thumb that summarize the budget's sensitivity to key economic variables. Chapters IV and V, respectively, contain more detailed descriptions of the spending and revenue projections.

THE BUDGET OUTLOOK THROUGH 1996

Projecting the course of the federal budget requires making assumptions about future spending and taxing policies. Table III-1 presents budget projections under two different assumptions about discretionary spending. The first alternative--the baseline--assumes that discretionary spending authority is held constant at 1991 inflation-adjusted levels. The second, lower path assumes that discretionary appropriations are limited to the levels specified in the Budget Enforcement Act.

The Budget Baseline

Before the 1990 budget agreement, the budget baseline was the most commonly used benchmark for assessing the future course of the budget. For revenues and entitlement spending, the baseline generally assumes that laws now on the statute books will continue. For defense, international, and domestic discretionary spending, the baseline projections are based on the most recently enacted appropriations (in this case, for 1991), increased only to keep pace with inflation.

Because the discretionary spending limits in the Budget Enforcement Act do not grow as fast as inflation, the baseline no longer represents current budgetary policy for discretionary programs. Nonetheless, the baseline still serves several important purposes. First, the baseline is the reference point for estimating changes in revenues or entitlement spending for pay-as-you-go. Second, the difference between the baseline and the caps for discretionary programs shows the amount of real spending reductions still to be made. Third, many of the adjustments to the discretionary caps are computed using the baseline.

The Budget Enforcement Act made no changes in the rules for estimating the revenue baseline. The revenue projections reflect current tax laws, including any scheduled increases or phase-outs. In addition, as specified in the act, excise taxes dedicated to trust funds, if expiring, are assumed to be continued at current rates. CBO therefore assumes that highway taxes are extended beyond September 30, 1995, and that aviation taxes are extended beyond December 31, 1995. Three other, smaller extensions are also assumed.

Entitlement and other mandatory spending programs do not require annual decisions on funding levels; instead, they continue making payments to eligible recipients until the Congress changes the underlying laws. Like the revenue baseline, the baseline for mandatory programs represents CBO's estimate of future spending under the baseline economic assumptions, assuming continuation of current law. Under the Budget Enforcement Act, however, no program with estimated outlays greater than $50 million is assumed to expire in the baseline. In particular, the baseline assumes that the Congress will provide all funding necessary to meet existing commitments for deposit insurance.

Unlike entitlements, discretionary programs rely for their funding on annual Congressional action through the appropriation process. The baseline assumes no real growth in these discretionary appropriations, adjusting them only for inflation. The Budget Enforcement Act changed the measure of inflation used in computing the baseline for discretionary programs. Henceforth, nonpersonnel costs will be adjusted using the projected growth in the GNP fixed-weighted price index; personnel costs are adjusted using the employment cost index. Previously, the implicit GNP deflator was used for both personnel and nonpersonnel spending. As under prior law, personnel spending is also adjusted to make up for pay absorption (initially funding some portion of an increase in pay rates by reducing nonpersonnel spending) and for changes in agencies' payments to the retirement and health benefits trust funds.

The Budget Enforcement Act eliminates an anomaly in the discretionary baseline by adjusting it to reflect year-to-year changes in the number of expiring subsidized housing contracts up for renewal. It also provides that budgetary resources for the administrative expenses of Medicare, Unemployment Insurance, and Railroad Retirement shall be adjusted by the projected increase or decrease in the beneficiary population.

Under baseline assumptions, the total deficit would grow from $220 billion in 1990 to $298 billion in 1991 and 1992, before dropping to $239 billion in 1993, $211 billion in 1994, and $128 billion in 1995 (see Table III-1). In relation to the size of the economy, the total baseline deficit represents 4.1 percent of GNP in 1990, 5.3 percent of GNP in 1991, and 5.0 percent of GNP in 1992. In 1995 and 1996, the baseline deficit would be less than 2 percent of gross national product.

Discretionary Spending Limits

Adhering to the discretionary spending limits in the Budget Enforcement Act, as indicated in Table III-1, will require holding discretionary outlays below the baseline by an estimated $13 billion in 1992, $22 billion in 1993, $46 billion in 1994, and $62 billion in 1995. The required outlay savings grow sharply in 1994, because baseline outlays for discretionary programs increase by $24 billion in line with inflation, while the outlay cap hardly rises at all. Although the statutory caps do not extend beyond 1995, sticking to the caps through 1995 and allowing appropriations to grow at the rate of inflation thereafter will

TABLE III-1. CBO PROJECTIONS OF TOTAL FEDERAL REVENUES, OUTLAYS, AND DEFICITS (By fiscal year)

	Actual 1990	1991	1992	1993	1994	1995	1996
In Billions of Dollars							
Baseline							
Revenues	1,031	1,094	1,170	1,251	1,332	1,416	1,496
Outlays	1,252	1,391	1,468	1,490	1,543	1,544	1,632
Deficit	220	298	298	239	211	128	135
Required Reductions[a]							
Discretionary spending	n.a.	n.a.	13	22	46	62	65
Debt service savings	n.a.	n.a.	1	2	5	9	14
Subtotal	n.a.	n.a.	14	24	51	71	79
Totals Assuming Discretionary Caps							
Revenues	1,031	1,094	1,170	1,251	1,332	1,416	1,496
Outlays	1,252	1,391	1,454	1,466	1,492	1,473	1,553
Deficit	220	298	284	215	160	57	56
As a Percentage of GNP							
Baseline Deficit	4.1	5.3	5.0	3.7	3.1	1.8	1.8
Totals Assuming Discretionary Caps							
Revenues	19.1	19.4	19.5	19.5	19.5	19.5	19.4
Outlays	23.2	24.7	24.2	22.9	21.9	20.3	20.2
Deficit	4.1	5.3	4.7	3.4	2.4	0.8	0.7
Memorandum:							
Gross National Product (In billions of dollars)	5,406	5,624	6,003	6,405	6,813	7,246	7,705

SOURCE: Congressional Budget Office.

NOTES: The projections include Social Security and the Postal Service, which are off-budget.

n.a. = not applicable.

a. The discretionary spending caps apply only through 1995. The 1996 figure is an extrapolation.

TABLE III-2. CBO ESTIMATES OF DISCRETIONARY SPENDING CAPS (By fiscal year, in billions of dollars)

	1991		1992		1993	
	Budget Authority	Outlays	Budget Authority	Outlays	Budget Authority	Outlays
Defense						
Cap as of January 30	289.9	298.8	291.3	295.9	291.5	292.5
CBO Baseline	289.2	300.3	302.4	304.5	315.1	310.7
Required Reductions	n.a.	n.a.	11.1	8.6	23.6	18.2
International						
Cap as of January 30	20.1	18.7	20.0	18.9	20.9	19.7
Adjustment for Special BA Allowance	n.a.	n.a.	1.2	0.6	1.2	0.8
End-of-Session Cap	20.1	18.7	21.2	19.4	22.1	20.5
CBO Baseline	20.1	18.7	20.8	19.5	21.3	20.4
Required Reductions	n.a.	n.a.	0	0.1	0	0
Domestic						
Cap as of January 30	182.9	198.3	197.2	207.5	204.7	219.2
Adjustments						
Special BA allowance	n.a.	n.a.	1.5	0.8	1.5	1.3
IRS adjustment	n.a.	n.a.	0.2	0.2	0.2	0.2
End-of-Session Cap	182.9	198.3	198.9	208.5	206.4	220.6
CBO Baseline	188.9[a]	197.1	199.2	213.1	205.7	224.5
Required Reductions	n.a.	n.a.	0.2	4.6	0	3.9
Total						
Cap as of January 30	492.9	515.8	508.6	522.3	517.1	531.4
End-of-Session Cap	492.9	515.8	511.5	523.8	520.0	533.6
CBO Baseline	498.2[a]	516.1	522.4	537.1	542.1	555.6
Required Reductions	n.a.	n.a.	11.3	13.3	23.6	22.1

SOURCE: Congressional Budget Office.

NOTES: BA = budget authority; IRS = Internal Revenue Service; n.a. = not applicable.

a. Baseline budget authority exceeds the cap in 1991 because of a redefinition of budget authority for certain federal trust funds.

produce discretionary savings of about $65 billion in 1996 relative to the baseline projections. In 1992 and 1993, three-quarters of the cumulative required outlay reductions are in the defense category, and a substantial portion of the reductions in 1994 and 1995 are likely to be in defense as well. These spending reductions will also produce debt service savings, which will reach $9 billion in 1995 and $14 billion in 1996. Table III-2 shows CBO's current estimates of the discretionary caps and the required reductions for 1992 and 1993, as described in Chapter II and in CBO's sequestration preview report (Appendix A).

Assuming that discretionary spending is held to the caps, the 1992 total deficit would be $284 billion, or 4.7 percent of GNP (see Table III-1). The total deficit would fall to $215 billion (3.4 percent of GNP) in 1993 and $57 billion (0.8 percent of GNP) in 1995. The projected deficit drops only slightly in 1996, when $14 billion in spending reductions and tax increases are scheduled to expire. Expiring revenue provisions of the Omnibus Budget Reconciliation Act of 1990 total $7 billion, half of which stems from expiration of 2.5 cents per gallon of the motor fuels tax. Expiring spending provisions are worth another $7 billion, including $3 billion in the Medicare program and $2 billion from lump-sum payments to federal retirees.

CHANGES IN THE OUTLOOK SINCE JULY

While the short-term budget outlook is considerably worse than when CBO reported last July, the longer-run picture has improved. These changes reflect the reconciliation and appropriation bills, which have reduced the deficit, and recent developments in the economy, deposit insurance, and elsewhere, which have increased it.

Policy Changes

CBO estimates that the policies in the budget agreement have reduced the deficit by $33 billion in 1991, $69 billion in 1992, and $160 billion in 1995, compared with CBO's July baseline (see Table III-3). Over the entire 1991-1995 period, the package saves an estimated $482 billion--close to the target in the summit agreement. Excluding $59 billion in debt service savings, 63 percent of the deficit reduction ($264 billion) derives from cutting outlays below baseline levels, and 37 percent ($158 billion) stems from raising taxes.

Two-thirds of the five-year savings--$322 billion--has already been put in place. This amount comprises $158 billion in tax revenue increases, $75 billion in reductions in entitlements and other mandatory spending (including additional user fees), $46 billion in lower discretionary spending, and $43 billion in reduced debt service costs. The remaining $160 billion in deficit reduction is to be achieved by holding discretionary appropriations to the specified limits ($144 billion in lower discretionary spending and $16 billion in resulting debt service savings).

TABLE III-3. EFFECTS OF RECENT POLICY CHANGES ON CBO DEFICIT PROJECTIONS (By fiscal year, in billions of dollars)

	1991	1992	1993	1994	1995	Cumulative Five-Year Changes
Revenue Increases	-18	-33	-32	-37	-39	-158
Entitlements and Other Mandatory Spending	-9	-12	-16	-19	-19	-75
Enacted Appropriations						
Defense	-6	-14	-20	-24	-26	-91
Nondefense	1	8	11	12	13	45
Subtotal	-6	-6	-9	-12	-13	-46
Required Reductions in Discretionary Spending	n.a.	-13	-22	-46	-62	-144
Debt Service Savings	-1	-4	-10	-17	-27	-59
Total	-33	-69	-89	-131	-160	-482

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

The $158 billion in additional revenues includes the following big-ticket items:

- $41 billion from extending, raising, or imposing excise taxes on telephone service, tobacco, alcohol, certain luxury goods, and airline travel;
- $40 billion from income tax changes affecting high-income taxpayers, including a 31 percent top tax bracket, a phase-out of personal exemptions, and a reduction in allowable itemized deductions;
- $27 billion from raising the cap on wages subject to the Medicare payroll tax to $125,000;
- $25 billion from an additional 5-cents-per-gallon tax on gasoline and other motor fuels;
- $9 billion from extending Social Security coverage to all state and local government employees not covered by a public pension plan; and
- $9 billion from a new requirement that income tax deductions for certain acquisition expenses of insurance companies be spread over time and not completely taken in the first year.

Many other, smaller tax increases and decreases were also enacted. Increased appropriations for Internal Revenue Service enforcement activities are estimated by CBO to produce an additional $4 billion in revenues over the next five years. The revenue-losing provisions include extension of the credits for research and experimentation and for investment in low-income housing, and new incentives for energy production.

The major cuts in entitlements and other mandatory spending are:

- $43 billion from Medicare, including $33 billion in lower reimbursement payments to doctors and hospitals and $10 billion in higher premiums and deductibles for program beneficiaries;
- $14 billion from eliminating the lump-sum payment option for most federal retirees and from other changes in federal employee retirement and health benefits;
- $9 billion from administrative actions to increase deposit insurance premiums for banks; and
- $4 billion from lower farm price support payments.

Other, smaller savings were achieved by reforming Stafford student loans, Federal Housing Administration mortgage insurance programs, and veterans' benefits, and by imposing various user fees. The entitlement savings were partly offset by a $17 billion increase in spending for the earned income tax credit, a change designed to help lower-income workers pay for child care and health insurance.

The $46 billion in enacted savings from discretionary programs comprises a reduction of $91 billion in defense outlays and a $45 billion increase in nondefense discretionary spending. An additional $144 billion in discretionary spending reductions, mostly in national defense, remains to be made over the 1992-1995 period.

Economic Changes

CBO's short-run economic forecast and longer-term assumptions increase the projected deficit by $50 billion in 1991, $63 billion in 1992, and $79 billion in 1995 (see Table III-4). As detailed in Chapter I, CBO's new forecast reflects significant signs of weakness that appeared in the economy after CBO completed its summer forecast in June. The Iraqi invasion of Kuwait in early August has caused an in-

TABLE III-4. CHANGES IN CBO BUDGET PROJECTIONS SINCE JULY (By fiscal year, in billions of dollars)

	1991	1992	1993	1994	1995
Revenues					
July 1990 Estimate	1,123	1,188	1,260	1,337	1,417
Policy Changes	18	33	32	37	39
Economic Assumptions	-40	-46	-38	-39	-43
Technical Reestimates	-7	-5	-3	-2	3
Total	-29	-18	-9	-5	-1
Current Estimate	1,094	1,170	1,251	1,332	1,416
Outlays					
July 1990 Estimate	1,355	1,426	1,456	1,482	1,555
Policy Changes	-15	-36	-57	-94	-121
Economic Assumptions					
Net interest	1	6	15	23	31
All other	10	11	9	7	5
Subtotal	11	17	24	31	36
Technical Reestimates					
Deposit insurance	23	20	7	32	-44
National defense	-1	a	2	2	2
Medicare and Medicaid	4	7	9	13	16
Other major benefits	3	3	3	4	5
Debt service	4	8	11	15	17
All other	8	7	7	6	7
Subtotal	41	45	40	72	3
Credit Reform (Accounting change)	0	2	3	2	a
Total	37	28	10	10	-82
Current Estimate	1,391	1,454	1,466	1,492	1,473
Deficit					
July 1990 Estimate	232	238	196	145	138
Policy Changes	-33	-69	-89	-131	-160
Economic Assumptions	50	63	63	70	79
Technical Reestimates	49	50	43	74	-1
Credit Reform	0	2	3	2	a
Total	66	46	19	15	-81
Current Estimate	298	284	215	160	57

SOURCE: Congressional Budget Office.

a. Less than $500 million.

crease in oil prices, which has boosted inflation in the short run. In addition, the revision of the national income and product accounts for the past three years suggests that the economy's potential rate of growth is lower than previously thought.

Taken together, these economic developments reduce projected revenues by about $40 billion per year. On the outlay side of the ledger, spending is higher in the first few years of the projections for unemployment-sensitive programs, such as Unemployment Insurance, Food Stamps, and Medicaid. Higher inflation increases the 1991 and 1992 cost-of-living adjustments for Social Security and other benefit programs. Finally, increased federal borrowing requirements and, in the longer run, higher interest rates boost debt service costs, by amounts growing from $1 billion in 1991 to $6 billion in 1992 and $31 billion in 1995.

Technical Estimating Changes

Changes in technical estimating assumptions have increased the projected deficits by an average of more than $50 billion per year in 1991 through 1994, but have reduced the deficit slightly in 1995. This pattern mirrors the changes in deposit insurance estimates, which average $20 billion higher in 1991 through 1994 but are $44 billion lower in 1995. Significant changes have been made in the estimates for the Federal Savings and Loan Insurance Corporation (FSLIC) Resolution Fund (which is responsible for resolving thrift institutions sold or liquidated before March 1989), the Resolution Trust Corporation (RTC) and the Savings Association Insurance Fund (SAIF) (which are responsible for other insolvent thrifts), and for the Bank Insurance Fund (BIF) (which insures commercial and savings banks).

The FSLIC Resolution Fund is projected to spend $7 billion more in 1991, compared with CBO's July baseline. CBO also assumes that the fund will repay $9 billion of interest-bearing notes in 1991 and $1 billion in 1992, which will increase Treasury borrowing requirements but not outlays. These changes reflect the expected renegotiation of contracts with acquirers of failed thrifts. The new contracts will cut the government's yield-maintenance and interest costs by $2 billion per year after 1991.

The Resolution Trust Corporation spent $10 billion more during the final months of fiscal year 1990 than CBO projected in July. This surge in spending suggests that RTC is resolving cases more quickly and needs more working capital than previously thought. CBO is also now assuming that RTC will continue in business through 1995 and resolve cases that would otherwise have been left to SAIF. As a result, CBO has upped its estimates of RTC spending in 1991 through 1994, assuming that the Congress provides the necessary wherewithal, but reduced its estimate for 1995. CBO has not significantly changed its estimates of total thrift losses or of the expected return on the assets of failed thrifts.

In contrast, the condition of the banking industry has clearly deteriorated since last summer. Additional case resolution costs, only partly offset by assumed increases in bank insurance premiums, add $10 billion to the projected 1991 deficit and $4 billion in 1992. Outlays of this size will render the Bank Insurance Fund insolvent by 1992, and the baseline assumes that BIF will borrow from the Federal Financing Bank to obtain working capital.

Faster growth in Medicare and Medicaid is projected to increase spending by $4 billion in 1991, $7 billion in 1992, and $16 billion in 1995 over the July baseline. Debt service estimates have been raised by $4 billion in 1991, $8 billion in 1992, and $17 billion in 1995 as a result of the increases in spending for deposit insurance, Medicare and Medicaid, and other programs. The remaining technical reestimates are spread over a wide variety of revenue sources and spending programs.

MEASURING THE DEFICIT

As noted in Chapter II, the Budget Enforcement Act removed the income and outgo of the two Social Security trust funds from the calculation of the deficit targets. Excluding Social Security and the Postal Service (which was removed from the budget by the Omnibus

Budget Reconciliation Act of 1989), the on-budget deficit is projected to rise from $277 billion in 1990 to $360 billion in 1991. Assuming adherence to the discretionary caps, the on-budget deficit would then fall to $354 billion in 1992, $294 billion in 1993, $258 billion in 1994, and $170 billion in 1995 (see Table III-5).

From the standpoint of economic policy, the on-budget deficit is not meaningful. The annual flows in Social Security and the Postal Service affect economic activity and the allocation of resources in exactly the same way as the flows in other government accounts. The total government deficit, including the Social Security and other trust funds, determines the government's fiscal stance, its drain on credit markets, and the amount of saving it diverts from uses that promote

TABLE III-5. ALTERNATIVE MEASURES OF THE DEFICIT
(By fiscal year, in billions of dollars)

	Actual 1990	1991	1992	1993	1994	1995	1996
Total Deficit Assuming Discretionary Caps	220	298	284	215	160	57	56
Deficit Excluding Deposit Insurance	162	194	186	167	135	103	99
On-Budget Deficit (Excluding Social Security and Postal Service)	277	360	354	294	258	170	185
Memoranda:							
Deposit Insurance	58	103	98	48	25	-47	-42
Off-Budget Surplus							
Social Security	58	63	70	82	96	112	129
Postal Service	-2	a	a	-2	1	1	a
Total	57	62	70	79	97	113	129

SOURCE: Congressional Budget Office.

a. Less than $500 million.

growth in living standards. For this reason, most tables in this volume display figures for total revenues, outlays, and the deficit.

As was discussed in Chapter I, year-to-year swings in federal deposit insurance spending, unlike Social Security, do not represent changes in the federal government's effect on the economy. Federal spending to insure deposits at banks, thrift institutions, and credit unions is projected to rise from $58 billion in 1990 to $103 billion in 1991, drop sharply in 1993, and turn negative in 1995 (see Table III-5). Most of this spending is required to close or subsidize the sale of hundreds of insolvent thrift institutions. Although financing the thrift bailout will add substantially to federal borrowing requirements in the next few years, this borrowing does not put much additional pressure on interest rates. The money that the government borrows to resolve insolvent thrifts and banks (less the administrative and interest costs) is returned to financial markets. The money is redeposited in new accounts or invested directly in income-earning assets. Excluding deposit insurance, the federal deficit is projected to rise from $162 billion in 1990 to $194 billion in 1991 and to decline slowly thereafter. In relation to the size of the economy, the deficit excluding deposit insurance declines from 3.5 percent of GNP in 1991 to 1.3 percent of GNP in 1996.

In addition to the two Social Security trust funds, the federal budget contains more than 150 other trust funds. These include trust funds for Medicare, federal civilian and military retirement, unemployment insurance, highways, and airports. Federal trust funds serve primarily as a bookkeeping tool for recording earmarked income and spending. In the aggregate, income credited to trust funds is projected to exceed trust fund outlays by $120 billion in 1991. The projected trust fund surplus, as conventionally measured, swells to $201 billion by 1996, with Social Security accounting for almost two-thirds of the total (see Table III-6).

The conventional measure of the trust fund surplus, however, ignores the fact that there are large transfers of money from the budget's general fund to the trust funds. Such transfers boost the trust fund surplus and the deficit in the remainder of the budget (known as the federal funds deficit) by equal amounts; they do not affect the total federal deficit or federal borrowing requirements by one penny. The largest of these intrabudgetary transfers are interest paid to trust funds, the government's contributions as employer to the retirement trust funds, and the general-fund subsidy for Supplementary Medical Insurance (Part B of Medicare). Transfers from the general fund to

TABLE III-6. CBO PROJECTIONS OF TRUST FUND SURPLUSES
(By fiscal year, in billions of dollars)

Trust Fund	1991	1992	1993	1994	1995	1996
Social Security	63	70	82	96	112	129
Medicare	16	16	18	17	15	11
Military Retirement[a]	14	12	13	13	14	14
Civilian Retirement[b]	23	25	27	29	31	30
Unemployment	-2	3	6	7	8	9
Highway and Airport	4	4	4	4	4	5
Other	3	1	1	2	2	2
Total Trust Fund Surplus[c]	120	131	151	169	186	201
Federal Funds Deficit[c]	-418	-415	-365	-329	-243	-257
Total Deficit	-298	-284	-215	-160	-57	-56
Memoranda:						
Trust Fund Deficit Excluding Transfers from General Fund	-59	-59	-58	-60	-65	-75
Federal Funds Deficit Excluding Transfers to Trust Funds	-239	-225	-157	-100	8	19

SOURCE: Congressional Budget Office.

a. Civil Service Retirement, Foreign Service Retirement, and several smaller funds.

b. Primarily Railroad Retirement, employees' health insurance and life insurance, Hazardous Substance Superfund, and various veterans' insurance trust funds.

c. Assumes that discretionary spending reductions are made in non-trust-fund programs.

trust funds are projected to grow from $17[illegible] billion in 1991 to $276 billion in 1996. Without them, trust funds in the aggregate would exhibit deficits, not surpluses, as Table III-6 shows.

THE ECONOMY AND THE BUDGET

The federal budget is highly sensitive to the economy. Revenues depend largely on wages and salaries, corporate profits, and other taxable incomes. Many benefits are pegged directly or indirectly to inflation, while others respond to the unemployment rate. And the costs of servicing the government's large and growing debt depends on interest rates.

One popular way to highlight the effects of economic performance on the budget focuses on four key variables: real economic growth, unemployment, inflation, and interest rates. Table III-7 shows the estimated changes in budget totals if any of these variables were to differ from CBO's baseline assumptions by one percentage point beginning in January 1991. Such simplified illustrations are commonly called rules of thumb.

Real Growth

Real growth has powerful effects on the federal budget, chiefly on federal government revenues and on interest costs. The baseline assumes that, after 1991's recession, real growth returns to a rate averaging nearly 3 percent in 1992 through 1996. The first rule of thumb knocks a percentage point from these assumed growth rates, postulating a deeper recession in 1991 and pallid growth of about 2 percent a year thereafter. After five years, real and nominal GNP are more than 5 percent below baseline levels.

Revenue losses, reflecting lower nominal income, climb from $7 billion in 1991 to $103 billion in 1996. As sluggish growth persists, the unemployment rate rises, and spending for unemployment compensation and a few other benefit programs mounts. But more striking is the effect on net interest, as higher borrowing drives up debt service costs.

By 1996, the deficit would be higher by $134 billion. Because rules of thumb show the effect of economic variables in isolation, this example assumes that inflation and interest rates do not deviate from their baseline paths even as real growth falters.

TABLE III-7. EFFECTS ON CBO BUDGET PROJECTIONS OF SELECTED CHANGES IN ECONOMIC ASSUMPTIONS (By fiscal year, in billions of dollars)

	1991	1992	1993	1994	1995	1996
Real Growth: Effect of One-Percentage-Point Lower Annual Rate Beginning January 1991						
Change in Revenues	-7	-23	-40	-60	-80	-103
Change in Outlays	1	4	8	14	21	31
Change in Deficit	8	26	48	74	102	134
Unemployment: Effect of One-Percentage-Point Higher Annual Rate Beginning January 1991						
Change in Revenues	-28	-42	-43	-44	-46	-47
Change in Outlays	5	8	12	16	21	25
Change in Deficit	33	49	55	61	66	73
Inflation: Effect of One-Percentage-Point Higher Annual Rate Beginning January 1991						
Change in Revenues	6	17	30	45	61	78
Change in Outlays	5	18	30	43	57	71
Change in Deficit	-1	a	-1	-2	-4	-7
Interest Rates: Effect of One-Percentage-Point Higher Annual Rates Beginning January 1991						
Change in Revenues	0	0	0	0	0	0
Change in Outlays	5	15	22	28	33	37
Change in Deficit	5	15	22	28	33	37

SOURCE: Congressional Budget Office.

a. Less than $500 million.

Unemployment

As the first example makes clear, real growth and unemployment are intertwined. The second rule of thumb depicts the budgetary effects of a one-percentage-point increase in the unemployment rate. In the CBO baseline forecast, the unemployment rate averages 6.8 percent in 1991, falling gradually to 5.6 percent by 1996. By contrast, the unemployment rate in this second rule of thumb averages 7.8 percent in 1991 and 6.6 percent in 1996.

A sharp rise in the unemployment rate would be accompanied by a drop in economic output. Okun's law, a generalization well known to economists, links a percentage-point rise in the unemployment rate to a reduction of about 2½ percentage points in GNP. The budgetary effects mirror those of the first example: revenues are lower, benefit outlays and debt service costs higher. In the short run, the economic slowdown is more drastic and the budget effects more severe. But the gap in economic output remains stuck at 2½ percent, instead of growing worse and worse as in the first rule of thumb. The longer-term budgetary effects are therefore not as enormous as in the first example, boosting the deficit by $73 billion in 1996.

Inflation

The third rule of thumb shows the estimated budgetary impacts of an inflation rate that is one percentage point higher than the baseline in 1991 through 1996. Thus, the growth in the overall GNP deflator is about 5 percent in 1991 (instead of 4.3 percent), tapering off to 4.5 percent (instead of 3.5 percent) by 1996. Other measures of inflation, such as consumer prices, behave similarly. Real growth is held to its baseline path. And finally, nominal interest rates are assumed to rise by one percentage point as well, leaving real interest rates unchanged.

Given these assumptions, higher inflation would have only a negligible effect on the government's total deficit. Revenues climb with inflation, despite indexation of the income tax, as taxpayers receive higher wages and salaries, profits, and other incomes. But as revenues grow with inflation, so do federal government outlays, though with varying lags. Almost all benefit programs (which make up about 40 percent of federal spending) pay explicit cost-of-living adjustments or otherwise respond automatically to inflation. In the next few years, discretionary programs are governed by dollar caps, which are adjusted for inflation with a two-year lag. Finally, net interest spending would rise in response to higher interest rates.

Interest Rates

The Treasury must finance and refinance the growing federal debt at prevailing market rates. The fourth rule of thumb depicts the budget's sensitivity to an increase of one percentage point in interest rates. As shown in Table III-7, such an increase in the interest rate for all Treasury maturities would raise estimated outlays by $5 billion in 1991 and by $37 billion in 1996. By the final year, nearly the entire debt bears the higher interest rates: of the marketable debt projected to be outstanding at the end of 1996, only one-sixth is neither originally financed nor refinanced during the 1991-1996 period. In addition to net interest, these estimates incorporate small changes in several other interest-sensitive programs (chiefly Stafford student loans). Because the effects are unclear, this rule of thumb includes no estimates of whether and how much tax revenues or deposit insurance spending might respond to a sharp uptick in interest rates.

While rules of thumb clearly show the link between economic performance and budget outcomes, they have their limitations. Errors of one percentage point are used for simplicity; they do not represent typical forecasting errors. Some economic variables (for example, interest rates) are notoriously harder to predict than others. Most important, economic variables are related to one another, and sustained changes in one rarely occur in isolation. The war in the Persian Gulf and the reaction to it, for example, will doubtless affect oil prices, interest rates, stock prices, consumer sentiment, and a host of other factors, but in complex and unforeseeable ways.

CHAPTER IV

THE OUTLOOK FOR FEDERAL SPENDING

In fiscal year 1991, federal spending is expected to approach $1.4 trillion, about 24.7 percent of gross national product (GNP)--a post-World War II record. But 1991 spending will be ballooned by several temporary factors: by the recession, which will drive up spending on benefit programs; and by the continuing hemorrhage of spending for deposit insurance, projected to top $100 billion this year. Not reflected in these estimates, but sure to add even more spending in 1991, are the extra costs associated with U.S. operations in the Persian Gulf region (which remain highly uncertain). More normal patterns should reassert themselves in the next five years. By 1993, if the spending caps in the Budget Enforcement Act are complied with, federal spending should slip back to 23.3 percent of GNP; and by 1996, it should be just above 21 percent of GNP--the lowest percentage in nearly two decades.

This chapter summarizes the outlook for federal government spending. It surveys the outlook for three broad clusters of spending that, under the Budget Enforcement Act, will be addressed in sharply different ways in the next five years: discretionary spending, mandatory spending, and net interest. The first cluster encompasses CBO's traditional categories of defense and nondefense discretionary programs--that is, activities that are controlled through the annual appropriation process. In the next five years, dollar caps will set a lid on spending for these programs. The second cluster includes entitlement programs such as Social Security and Medicare, along with offsetting receipts such as fees. Dollar caps do not hold sway within this cluster; but these programs are linked with federal government revenues in a pay-as-you-go regime, requiring that actions affecting them be, at worst, deficit neutral. Implicitly, the act forbids the Congress from crossing these boundaries--from cutting entitlement programs, for example, in order to fund increases in discretionary spending.

Deposit insurance represents a huge and volatile category of mandatory spending, and gets separate treatment under the Budget Enforcement Act; the chapter pays special attention to this timely topic. Finally, the chapter briefly summarizes the effect of one of the budgetary innovations mandated in the Budget Enforcement Act, credit reform.

Throughout this chapter, projected trends in federal spending are compared and contrasted with patterns over the last few decades. Figure IV-1 shows how the major clusters of federal spending have swollen or shrunk, relative to GNP, since the early 1960s. And Appendix D lists the detailed data that underlie this historical perspective.

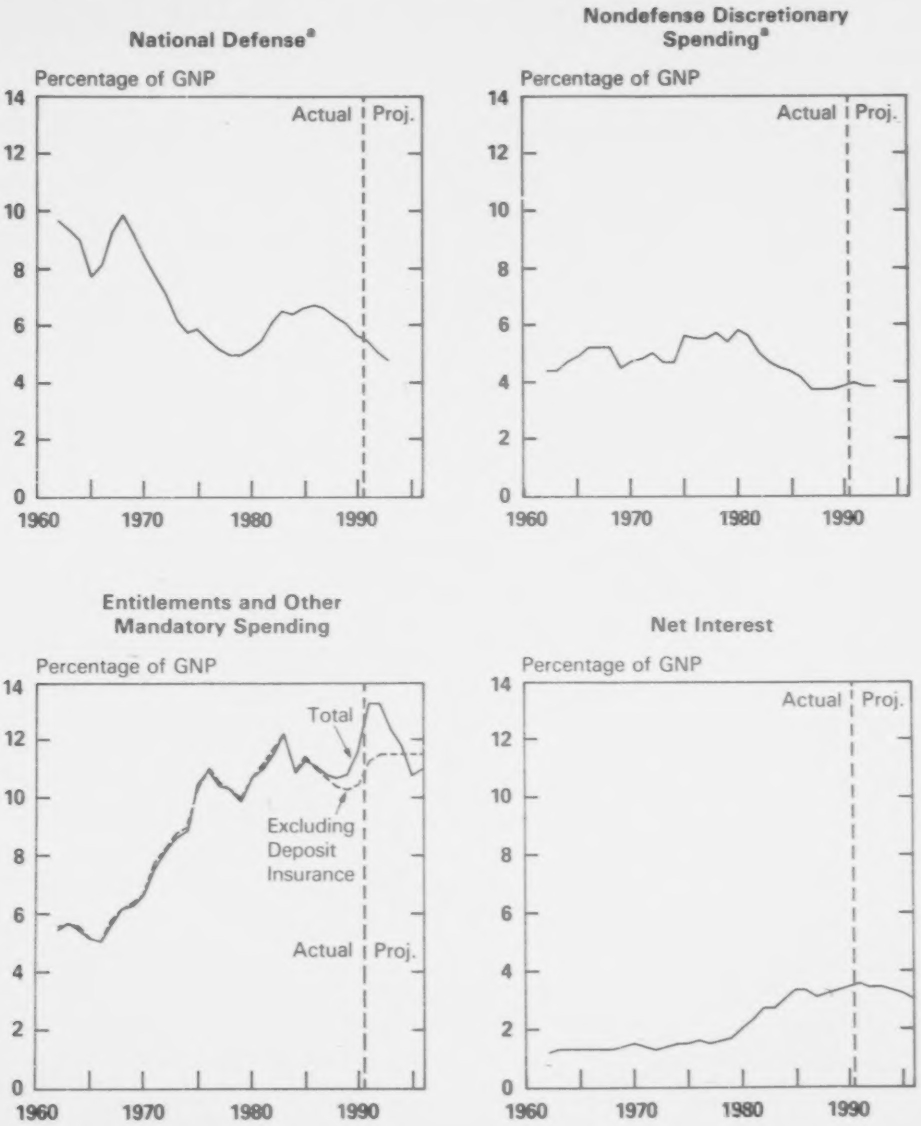
DISCRETIONARY PROGRAMS AND THE CAPS

Together, defense and nondefense discretionary programs make up roughly 40 percent of federal outlays--a much smaller share than the leading category, entitlements and mandatory spending. Each year, the Congress must decide how much budget authority (that is, authority to commit money) to parcel out among these programs. This budget authority ultimately translates into outlays, often with a lag in programs that involve long planning horizons.

Because these programs require annual appropriations, budget estimators must assume something about their course after the current year. Traditionally, attention has focused on baseline projections. Under baseline assumptions, budget authority (the engine that drives these programs) is adjusted annually for inflation. But the Budget Enforcement Act set multiyear caps for these programs that will constrain them, in the aggregate, from growing as rapidly as projected inflation. Through 1993, separate caps apply to defense, international discretionary, and domestic discretionary spending. In 1994 and 1995, a single cap constrains all three categories combined (see Figure IV-2).

If the caps are complied with, defense and nondefense discretionary programs combined would equal $521 billion in 1991 and $526 billion in 1992, growing slowly to $560 billion in 1996 (see Table IV-1).

Figure IV-1.
Outlays by Category as Shares of GNP



SOURCE: Congressional Budget Office.

a. Assumes compliance with discretionary spending caps in the Budget Enforcement Act. Caps are not specified in detail after 1993.

TABLE IV-1. OUTLAYS BY CATEGORY, ASSUMING COMPLIANCE WITH DISCRETIONARY SPENDING CAPS (By fiscal year)

Spending Category	Actual 1990	1991	1992	1993	1994	1995	1996
	In Billions of Dollars						
National Defense[a]	299	299	295	292	b	b	b
International Discretionary	19	19	19	20	b	b	b
Domestic Discretionary[c]	186	203	211	223	b	b	b
Subtotal	505	521	526	536	536	541	560
Entitlements and Other Mandatory Spending, Excluding Deposit Insurance	562	632	687	731	776	824	881
Deposit Insurance	58	103	98	48	25	-47	-42
Offsetting Receipts	-57	-63	-63	-67	-71	-76	-79
Net Interest	184	198	207	219	227	230	233
Total	1,252	1,391	1,454	1,466	1,492	1,473	1,553
On-budget	1,027	1,154	1,205	1,204	1,224	1,196	1,266
Off-budget[d]	225	237	249	262	268	277	287
	As a Percentage of GNP						
National Defense[a]	5.5	5.3	4.9	4.6	b	b	b
International Discretionary	0.4	0.3	0.3	0.3	b	b	b
Domestic Discretionary[c]	3.4	3.6	3.5	3.5	b	b	b
Subtotal	9.3	9.3	8.8	8.4	7.9	7.5	7.3
Entitlements and Other Mandatory Spending, Excluding Deposit Insurance	10.4	11.2	11.4	11.4	11.4	11.4	11.4
Deposit Insurance	1.1	1.8	1.6	0.7	0.4	-0.6	-0.6
Offsetting Receipts	-1.1	-1.1	-1.1	-1.0	-1.0	-1.0	-1.0
Net Interest	3.4	3.5	3.4	3.4	3.3	3.2	3.0
Total	23.2	24.7	24.2	22.9	21.9	20.3	20.2
On-budget	19.0	20.5	20.1	18.8	18.0	16.5	16.4
Off-budget[d]	4.2	4.2	4.1	4.1	3.9	3.8	3.7

SOURCE: Congressional Budget Office.

[a] Almost all national defense outlays are discretionary. For simplicity these figures include small amounts of defense offsetting receipts and mandatory spending (totaling about -$500 million to -$700 million annually) that lie outside the jurisdiction of the Appropriations Committees and are not subject to the cap.

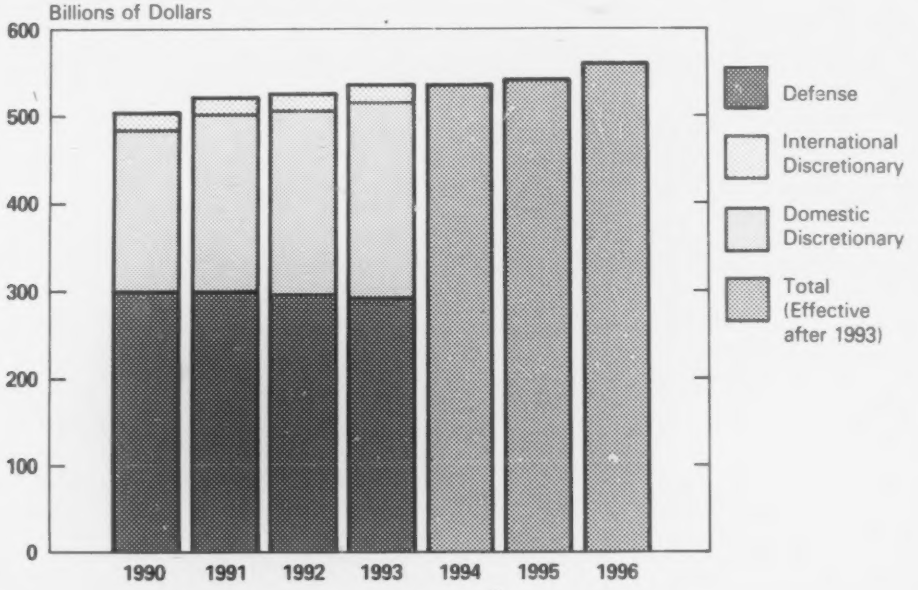
[b] Discretionary spending caps are specified by category through 1993 and in the aggregate for later years. Projections for 1996 represent a CBO extrapolation.

[c] Includes $2 billion to $3 billion in administrative costs of Social Security, which (in CBO's view) are not subject to the discretionary spending cap. The Office of Management and Budget disputes this view

[d] Social Security and Postal Service.

These totals slightly exceed the dollar caps cited in Chapter III, primarily because a small amount of discretionary spending--the administrative expenses of Social Security--is, in CBO's view, exempt from the caps because of the program's off-budget status. Within these totals, defense is held to a virtual dollar freeze in 1991 through 1993 (excluding any extra costs associated with Operations Desert Shield and Desert Storm), while domestic programs are allowed modest growth. The composition of the totals after 1993 is unspecified. Because the nation's economic growth is expected to outpace the caps, discretionary programs should shrink as a share of GNP--from about 9.3 percent at present to 7.3 percent of GNP by 1996.

Figure IV-2.
Discretionary Outlays for 1990-1996, Assuming Compliance with Spending Caps



SOURCE: Congressional Budget Office.

National Defense

The defense budget has been on a downward path since 1986, after the buildup of the early 1980s. The 1991 defense budget is no exception: total defense budget authority enacted by the Congress for 1991 was down about 4 percent from 1990, and about eight percentage points shy of what would be required merely to compensate for inflation. This defense budget authority reflected a scant $1 billion in funding for Operation Desert Shield, in anticipation that supplemental legislation would be passed later under the emergency procedures of the Budget Enforcement Act.

As Table IV-1 shows, defense outlays should shrink slightly in both 1992 and 1993, assuming compliance with the spending caps. After 1993, defense vies with nondefense programs for a share of the total discretionary pie. Because the total cap grows only modestly after 1993, the defense budget is likely to face continued cost-cutting pressures.

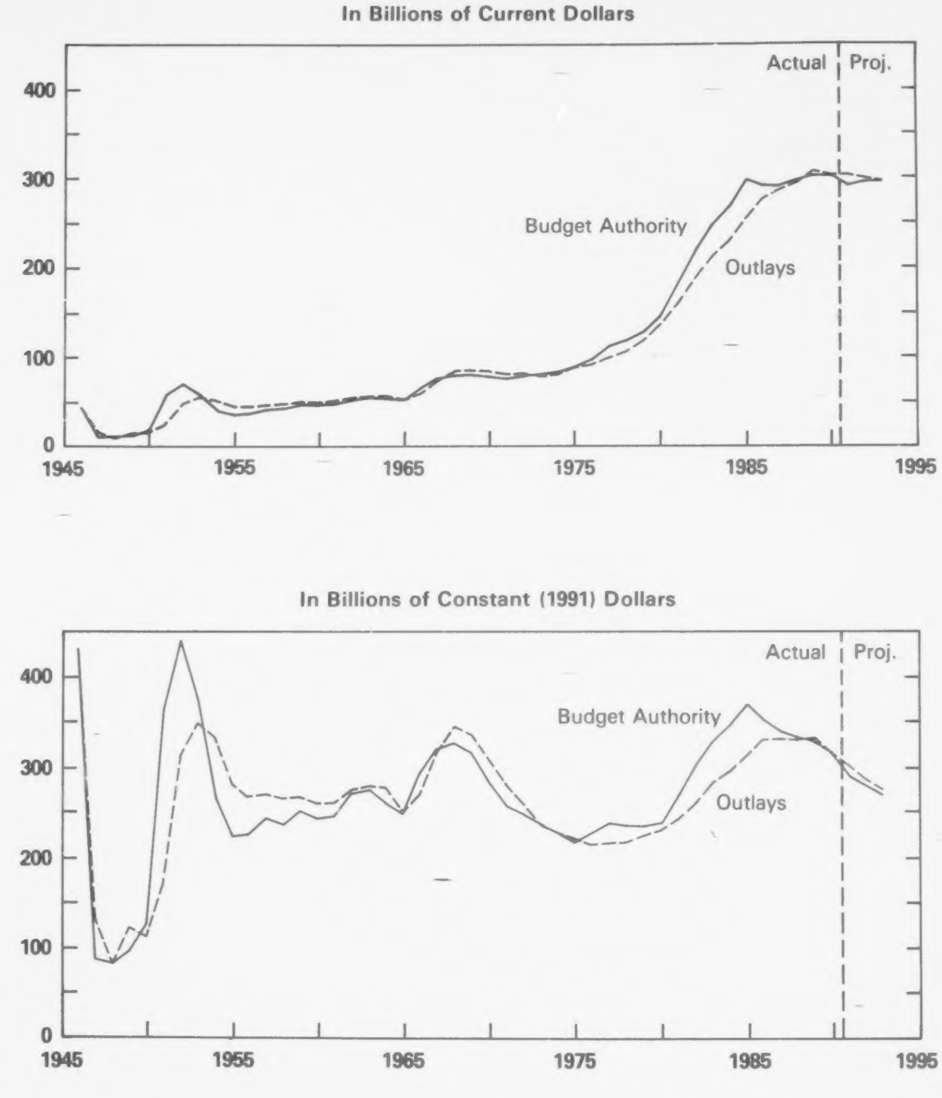
The defense budget is overwhelmingly discretionary in nature, that is, dependent on funding decisions by the Appropriations Committees. The defense totals, though, also reflect a few offsetting receipts and one small mandatory item, which lie outside the appropriators' control. For simplicity, these items (which sum to about -$500 million, a tiny fraction of the defense budget) are combined with the defense totals in Table IV-1. A brand-new classification dilemma arrived in 1991 with the receipt of billions of dollars in allied contributions to help support U.S. operations in the Persian Gulf (as discussed below). CBO has included these receipts in the defense function, offsetting the spending that they help to finance.

Defense represents about 5.3 percent of GNP today, a relatively low ratio by the standards of the last three decades except during the immediate post-Vietnam era (see Figure IV-1). With the caps, the defense share of GNP drifts down further, sinking to about 4.6 percent in 1993 (a level not witnessed since 1948). The downward trend will almost certainly continue after 1993. But statistics on defense as a share of GNP must be interpreted carefully. At best, they are a clue to the relative burden of defense spending in different periods or in different countries. They do not measure the adequacy of the nation's defense, an intangible concept that embraces the size and quality of forces and the nature of potential threats. Furthermore, expressing defense as a share of GNP may inadvertently imply that the real resources devoted to defense should inexorably keep growing as the country grows richer. Some observers prefer an alternative focus, simply analyzing the dollars provided to defense. Figure IV-3 depicts defense budget authority and outlays in dollar terms, before and after adjustment for inflation, since the end of World War II. It shows that current levels of real defense spending are roughly comparable with those of the 1960s before the Vietnam buildup, and above the levels of the peacetime 1970s (a period that many analysts felt shortchanged the defense budget). But like comparisons with GNP, such analyses reveal little about the adequacy or inadequacy of the nation's defenses.

The deployment and involvement of United States troops and equipment in the Persian Gulf region is deemed an emergency under the budget summit agreement, and thus is expected to be funded by a supplemental appropriation. Such a supplemental would neither violate the spending caps nor require offsetting reductions elsewhere in the budget, though of course it would boost the budget deficit.

At this time, no supplemental appropriation is in place for 1991. The 1991 baseline estimates, then, contain only limited and carefully circumscribed funding for Operations Desert Shield and Desert Storm. The projections reflect only about $7.5 billion in costs--exactly the amount shown as allied contributions, and therefore having no net effect on defense outlays or the deficit. (The extra spending is included in the 1991 figures solely to make the budget estimates more realistic. Because the spending has not actually been appropriated, it does not enter into the baseline for 1992-1996 projections.) The Defense Department figured the cost of the initial 200,000-troop deployment at $15 billion and estimated that allied contributions would cover roughly half, providing the basis for CBO's $7.5 billion estimate. But especially with the advent of combat, costs and contributions are likely to be quite different from this estimate.

Figure IV-3.
Defense Budget Authority and Outlays, 1946-1993



SOURCE: Congressional Budget Office.

NOTE: Projections assume compliance with discretionary spending caps.

U.S. troops deployed in the Persian Gulf region currently total about 450,000, and their activities pose substantial--but uncertain--costs. Of course, many of the costs of maintaining the troops and equipment would be incurred no matter where they were stationed. Thus, a critical question is the *incremental budgetary costs* associated with the buildup and conflict--costs that are easier to define than to measure. The range of possible costs is extremely wide, reflecting uncertainty about many factors: intensity and duration of the conflict; rotation policies for troops and equipment; the need to construct facilities; the need to delay planned reductions in personnel; possible replacement of weapons and supplies consumed in the conflict; the continuing role of the United States in the region after the conflict; and so forth. (A more detailed discussion of these issues can be found in a CBO staff memorandum, "Costs of Operation Desert Shield," January 15, 1991.) The *resource costs* of the conflict can be far higher than the budgetary costs, if stockpiles are drawn down and not replaced, and if substantial portions of the costs are defrayed by in-kind assistance from U.S. allies, such as the fuel that is supplied directly by Saudi Arabia.

Nondefense Discretionary Spending

Nondefense discretionary spending covers a vast array of federal government activities: foreign aid, space and science, transportation, the environment, social services and education, subsidized housing, veterans' medical care, and general government and judicial functions. About a fifth of the total represents pay and benefits for federal employees, and a third goes to state and local governments in the form of grants-in-aid.

In the aggregate, nondefense discretionary spending has shrunk in importance; today, it is about 4 percent of GNP, roughly two-thirds the size of peaks attained in the period of the mid-1970s through 1981 (see Figure IV-1). Particular clusters have exhibited distinct peaks and valleys in the past. Funding for international discretionary programs (essentially, foreign military and humanitarian aid) has shrunk fairly steadily as a share of GNP in the last three decades, amounting to about 0.3 percent of GNP today as against more than 1 percent in the early 1960s. The space program was in vogue in the 1960s, as the nation sought to land astronauts on the moon, while the 1970s witnessed sharply higher spending on education and social programs, and to a smaller extent, on energy and the environment. Nearly all nondefense discretionary programs shared in the post-1981 decline. These programs' share of GNP bottomed out at 3.7 percent in 1987 through 1989. Recent years' appropriations have tended to boost the budget authority for nondefense discretionary programs.

Over the next few years, nondefense discretionary spending will be governed by the caps spelled out in the Budget Enforcement Act. Through 1993, the caps split nondefense discretionary spending into two clusters: domestic appropriations, and the (far smaller) international discretionary category. In the aggregate, budget authority for both categories can keep pace with inflation through 1993, although the Congress will likely have to move small amounts of money from fast- to slow-spending programs in order to satisfy the outlay caps. The separate caps end after 1993, when these programs will be subject to a single cap together with the defense budget (see Figure IV-2).

Future pay raises for federal civilian employees must be accommodated within the spending caps. Last fall's pay reform legislation calls for annual, across-the-board pay raises roughly matching private-sector wage growth, as well as special raises for civil servants in geographic areas where federal pay has fallen farthest behind private salaries. Box IV-1 discusses this legislation in greater detail.

Nondefense discretionary spending also encompasses many federal credit programs, in which the government lends money directly to borrowers or guarantees loans made by private lenders. The Budget Enforcement Act requires a change in the accounting of credit programs so as to express costs in terms of the long-run subsidies granted rather than in terms of cash flows. Credit reform is further discussed at the end of this chapter. The reform is purely an accounting change; the loan programs themselves remain unchanged, and borrowers will be unaware of the shift. However, the transition to a new accounting system will create an unavoidable discontinuity in budget data for these programs. Because credit reform (as explained below) removes

BOX IV-1
Federal Pay Reform and the Baseline

Currently, about one-fifth of nondefense discretionary spending goes toward pay and benefits for employees of civilian government agencies. And about one out of every eight defense dollars finances the analogous costs for civilian employees of the Defense Department. The Federal Employees Pay Comparability Act of 1990 addressed a number of long-standing issues in the policies governing federal civilian pay. Many studies have shown that federal jobs, on average, carry lower salaries than private-sector jobs involving similar qualifications and responsibilities. Estimates of the gap vary. The Bureau of Labor Statistics has estimated the gap at 30 percent; the Congressional Budget Office, relying on data commissioned by the Office of Personnel Management, has used a figure of 20 percent. Another issue has concerned the use of a single nationwide pay scale. Critics argued that a single scale for civil servants made little sense, causing major recruitment and retention problems in high-wage areas (and overpayment in low-wage areas).

Despite these concerns, pay raises in the past few years have been modest, paid across the board to all workers, and have been intimately bound up in the annual budget and appropriation process. Since fiscal year 1982, annual civilian pay raises have ranged from zero to 4.8 percent, and averaged 3.3 percent.

The new law provides for two main types of pay adjustment for federal white-collar workers. Starting in January 1992, *annual across-the-board adjustments* for all workers will be pegged to growth in the employment cost index (ECI). The full amount will be paid in 1992 and 1993; thereafter, the annual adjustment will equal the growth in the ECI less one-half of one percentage point. And starting in January 1994, *locality-based adjustments* in selected areas are intended to gradually close the gap between federal and nonfederal salaries. Ultimately, the law calls for the gap to shrink to 5 percent or less. In 1994, raises will equal 20 percent of the required amount; and a further raise equal to 10 percent of the required amount is due in each subsequent year. Where, and how large, these local adjustments will be will hinge on a survey that the Bureau of Labor Statistics (BLS) is ordered to conduct. The President has authority to reduce both the across-the-board and locality adjustments in the event of war, recession, or adverse economic conditions.

The locality-based adjustments may involve fairly large costs when they begin to take effect. Using the minimum phase-in rates specified in the law, CBO estimates that the raises will add about $1½ billion in fiscal year 1994 and $2½ billion in 1995. In fiscal year 2002, when they are fully phased in, the cost will be slightly over $10 billion a year. And if the BLS estimate of the gap exceeds CBO's assumption, costs would be higher.

Both the across-the-board and the locality-based pay increases must be accommodated within the discretionary spending caps. The Budget Enforcement Act lists several allowable adjustments in the discretionary spending caps, but pay reform is not among them.

some spending from the discretionary category starting in 1992, it slightly distorts the apparent growth rate between 1991 and 1992.

MANDATORY SPENDING AND THE PAY-AS-YOU-GO RULES

Entitlement and other mandatory spending and offsetting receipts have always been controlled in a different manner from discretionary spending. The Budget Enforcement Act collectively terms these mandatory programs and subjects them to an entirely new set of trade-offs. Unlike discretionary spending, mandatory programs will not face dollar caps. But the new rules effectively bar actions affecting these programs from adding to the deficit. In gauging deficit neutrality, mandatory programs are paired with federal government revenues. The act thus states that expansions in mandatory spending may be financed by tax increases, or tax cuts may be financed by savings in mandatory programs--a rule that was quickly dubbed the pay-as-you-go constraint. As Chapter II explains, the rule is enforced by tallying up the aggregate effects of new legislation at the end of a Congressional session.

Entitlements and Other Mandatory Programs

Roughly half of all federal spending is devoted to entitlements and other mandatory programs. Led by retirement and health care programs, they have also been a fast-growing category, doubling in size relative to GNP since the early 1960s (see Figure IV-1). Most of this jump had occurred by 1975. Alone among major categories of spending, they tend to keep pace with GNP in the budget projections, once highly volatile outlays for deposit insurance are excluded from the analysis. Table IV-2 depicts this huge category in greater detail.

The common thread shared by all entitlement and mandatory programs is their method of control. The Congress controls spending for these programs indirectly, by setting terms and conditions (eligibility

TABLE IV-2. CBO BASELINE PROJECTIONS FOR ENTITLEMENTS AND OTHER MANDATORY SPENDING, EXCLUDING DEPOSIT INSURANCE (By fiscal year, in billions of dollars)

Category	Actual 1990	1991	1992	1993	1994	1995	1996
Means-Tested Programs							
Medicaid	41	49	57	64	72	80	90
Food Stamps[a]	16	19	21	21	22	23	23
Supplemental Security Income	11	15	16	17	19	19	19
Family Support	13	15	16	16	17	18	18
Veterans' Pensions	4	4	4	4	4	4	3
Child Nutrition	5	5	6	6	7	7	7
Earned Income Tax Credit	4	5	6	7	8	10	11
Stafford Loans[b, c]	4	5	6	6	5	4	4
Other	2	3	3	3	3	4	5
Total, Means-Tested Programs	100	118	134	144	157	169	180
Non-Means-Tested Programs							
Social Security	246	266	284	301	318	335	353
Medicare	107	114	127	140	156	173	194
Subtotal	354	379	411	440	473	508	547
Other Retirement and Disability							
Federal civilian[d]	34	36	39	41	44	46	52
Military	22	23	25	26	27	29	30
Other	5	5	5	5	5	5	5
Subtotal	60	64	68	72	76	80	87
Unemployment Compensation	17	23	20	20	21	21	21
Other Programs							
Veterans' benefits[c, e]	13	15	16	17	18	18	17
Farm price supports[c]	6	11	12	10	9	9	8
Social services	5	6	6	6	5	5	5
Credit reform liquidating accounts[c]	0	0	6	5	4	3	1
Other	6	16	14	16	12	12	14
Subtotal	31	47	54	54	49	46	46
Total, Non-Means-Tested Programs	462	513	553	587	619	656	701
Total							
All Entitlements and Other Mandatory Spending, Excluding Deposit Insurance	562	632	687	731	776	824	881

SOURCE: Congressional Budget Office.

NOTE: Spending for major benefit programs shown in this table includes benefits only. Outlays for administrative costs of most benefit programs are classified as nondefense discretionary spending, and Medicare premium collections as offsetting receipts.

a. Includes nutrition assistance to Puerto Rico.

b. Formerly known as guaranteed student loans.

c. Program affected by credit reform.

d. Includes Civil Service, Foreign Service, Coast Guard, and other retirement programs, and annuitants' health benefits.

e. Includes veterans' compensation, readjustment benefits, life insurance, and housing programs.

requirements, benefit formulas, and so forth), rather than directly through the appropriation process. Payments are then available to anyone who meets the eligibility rules and seeks funds.

Means-Tested Programs. Means-tested programs--roughly, what most people mean by "welfare programs"--are only about a fifth of entitlement and mandatory spending. To qualify, recipients must fall below income cutoffs and often must satisfy other criteria such as age or family status. Means-tested entitlements are dominated by the burgeoning Medicaid program, a joint federal/state program. Medicaid outlays in the baseline soar from $49 billion in 1991 to $90 billion in 1996. (At the same time, state and local outlays for Medicaid are projected to climb from $39 billion to $71 billion, evidence of the strain that the program places on these governments.) Last fall, the Congress changed Medicaid in several ways, principally by requiring states to extend coverage to all children under the poverty level by 2002, and found roughly offsetting savings (in the early years) by requiring pharmaceutical discounts.

The reconciliation act also contained a major increase in the earned income tax credit (EITC). The EITC, part of the personal income tax system, provides refundable credits to low-income workers with children. EITC payments to families who owe no taxes, or whose credit exceeds their tax liability, are treated as a budget outlay because they are tantamount to direct benefit payments. Last fall's legislation also achieved savings in the Stafford loan program (formerly known as guaranteed student loans) by tightening standards for students and institutions with particularly high default rates.

Non-Means-Tested Programs. Unlike the programs just cited, the lion's share of entitlement and mandatory spending is not means-tested. Social Security and Medicare lead this category; Social Security is the bigger program, but Medicare is projected to grow more than twice as fast over the 1992-1996 period. Fundamentally, both programs might be expected to grow about as fast as the growth in the elderly population plus inflation. Medicare, however, faces added pressures as medical care costs continue to outstrip other prices and as beneficiaries use more and increasingly complex covered services. Medicare spending would be even higher than shown in Table IV-2 if it were not for last fall's reconciliation act, which curbed payments to providers and imposed greater cost sharing on beneficiaries; five-year savings of $35 billion resulted. Several cost-saving provisions expire in 1996, explaining a slight jump in the program's expected growth in that year.

Medicare is funded by a combination of payroll taxes on active workers, premiums from beneficiaries, and straightforward subsidies from the general fund. Both payroll taxes and beneficiary premiums were increased by last fall's legislation, though neither is depicted in Table IV-2. (Payroll taxes are discussed in Chapter V, on federal revenues; premiums are part of the offsetting receipts cluster of the budget, discussed below.)

Other retirement and disability programs run by the government chiefly include federal civilian and military retirement and Railroad Retirement. Last fall's legislation suspended through 1995 most federal employees' right to take part of their Civil Service Retirement benefits in a lump sum upon retirement, saving $1 billion to $2 billion a year. (Because these beneficiaries, by leaving their money on deposit with the government, will receive greater benefits, the long-run savings are nil; however, this pattern does not assert itself until after the turn of the century.) The surge in unemployment insurance benefits, which jump by more than one-third between 1990 and 1991, is not the result of recent legislation but of the recession, and such spending subsides somewhat after 1991 as the economy is assumed to recover.

Among other programs depicted in Table IV-2, farm price supports were reauthorized in 1990. The legislation, though, calls for the resumption of export subsidies and marketing loans if the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) does not end with an agricultural trade agreement.

As mentioned above, the switch to a new method of accounting for credit programs beginning in 1992 leads to some discontinuities in spending data. Credit reform temporarily distorts spending for several programs shown in Table IV-2: Stafford student loans, veterans' benefits (including mortgage programs), and farm price supports (which involve a relatively small export guarantee program). And credit reform leads to the creation of an entirely new category of mandatory spending: so-called liquidating accounts, which reflect future cash flows associated with the government's past credit commitments (shown in Table IV-2 and further explained at the end of this chapter). These future cash flows will be treated as mandatory outlays because they are no longer controllable in any meaningful sense. In relation to the enormous category of entitlement and mandatory spending, the temporary distortion caused by credit reform is tiny.

Federal government deposit insurance is another member of the mandatory spending category. Because of its unique characteristics and its special treatment under the Budget Enforcement Act, it is not depicted in Table IV-2. Current spending for deposit insurance is huge and volatile. But massive as these outlays are, they are temporary, involve little net drain on credit markets, and pose far smaller economic impacts than other federal spending. These programs earned special treatment under the Budget Enforcement Act; any newly enacted receipts (such as premiums) or spending are exempt from the pay-as-you-go rule if they merely represent the government's attempts to honor its current commitments. Because of these outlays' volatility and their special treatment in the budget rules, they are discussed separately later.

Offsetting Receipts

Offsetting receipts appear as negative outlays in the budget. They are distinct from revenues because they do not result from the federal government's taxing powers. Slightly more than half of offsetting receipts are intragovernmental, reflecting the government's own contributions to retirement plans on behalf of its employees. (Since such payments are part of agency budgets, but are clearly intragovernmental, a negative outlay must be recorded to avoid exaggerating the total deficit.) As shown in Table IV-3, these retirement-related receipts mount from $36 billion in 1991 to $44 billion in 1996.

The remaining offsetting receipts come from the public, which pays them voluntarily in exchange for a service or a privilege. Medicare premiums dominate this category, climbing from $12 billion in 1991 to $20 billion in 1996. These premiums are funneled mainly to the Supplementary Medical Insurance program (SMI, also known as Medicare Part B), which covers physician and certain other professional services. (Hospital bills, in contrast, are covered by Medicare Part A and financed by payroll taxes on workers.) While voluntary, SMI enjoys nearly universal enrollment among the eligible population. Premiums cover about one-fourth of Medicare Part B outlays, with the rest subsidized by general taxpayers. Last fall's legislation preserved

TABLE IV-3. OFFSETTING RECEIPTS IN THE BASELINE
(By fiscal year, in billions of dollars)

Category	Actual 1990	1991	1992	1993	1994	1995	1996
Employer Share of Employee Retirement							
Social Security	-6	-6	-6	-7	-8	-8	-9
Military Retirement	-16	-17	-16	-17	-17	-18	-18
Other[a]	-12	-13	-13	-14	-15	-16	-17
Subtotal	-34	-36	-36	-38	-40	42	-44
Medicare Premiums	-12	-12	-13	-14	-16	-19	-20
Energy-Related Receipts[b]	-5	-5	-5	-5	-6	-6	-6
Natural Resource-Related Receipts[c]	-3	-3	-3	-4	-4	-4	-4
Other	-4	-7	-6	-6	-6	-6	-6
Total	-57	-63	-63	-67	-71	-76	-79

SOURCE: Congressional Budget Office.

a. Primarily to Civil Service Retirement.

b. Includes proceeds from sales of power, various fees, and receipts from the Naval Petroleum Reserves and Outer Continental Shelf.

c. Includes timber receipts and various user fees.

this ratio, removing a linkage to Social Security cost-of-living adjustments that would have led premiums to finance a dwindling share of the program; over the 1991-1995 period, these changes were estimated to bring in an extra $8 billion. Other large offsetting receipts, as shown in Table IV-3 on the preceding page, involve charges for the right to exploit government-owned timber or minerals, charges for electric power generated by the federally owned power marketing administrations, user fees for recreational facilities or Customs Service processing, and so forth.

Under the Budget Enforcement Act, offsetting receipts are linked with entitlements and mandatory spending and government revenues under the pay-as-you-go rules. Thus, raising fees offers one way to finance increases in entitlement spending; alternatively, entitlement cuts could cover reductions in federal taxes or fees.

NET INTEREST

Net interest is not governed by any provision of the Budget Enforcement Act, simply because it is not susceptible to direct control. Rather, net interest depends on the government's debt and on interest rates. The Congress and the President exercise some control over the former, by making decisions that affect the government's total deficit and hence borrowing; they exert no direct control over the latter, which depend instead on market forces and on Federal Reserve policy.

Net interest is expected to total $198 billion in 1991, but its path thereafter hinges on compliance with the budget summit's requirements, among many other factors. If policymakers comply with the discretionary spending caps, net interest spending should total an estimated $233 billion in 1996 (see Table IV-1). Current projections vividly illustrate net interest's sensitivity to the government's deficit. Ignoring the caps, and instead permitting both defense and nondefense discretionary spending to rise in step with inflation, would boost debt service costs by an estimated $500 million in 1992 and $14 billion in 1996.

Net interest outlays are highly sensitive to market interest rates. Unprecedentedly high interest rates caused the first quantum leap in interest outlays, in the late 1970s and early 1980s, before rates subsided somewhat (leaving large deficits as the engine driving net interest spending). As Chapter I notes, both short- and long-term Treasury interest rates are assumed to fall gradually over the 1991-1996 period, ending at about one percentage point below today's levels and mitigating the rise in net interest costs.

Net or Gross?

Economists and financial market participants rightly worry about total federal borrowing and the resulting growth in interest costs. These observers focus on the total debt owed to the public--a figure that summarizes how much the government has had to raise in credit markets--and on its close cousin, net interest paid. But among other budget watchers, much confusion surrounds the measurement of interest and debt. This confusion is fueled by the complex budgetary treatment of federal government trust funds and the ensuing proliferation of net and gross measures of interest and debt.

As explained in Chapter III, federal government trust funds--chiefly Social Security, Medicare, and the federal civilian and military retirement systems--run large surpluses as conventionally measured, even though much of the surplus simply stems from reshuffling money within the budget. By law, funds invest their surpluses in special Treasury securities. Interest on these securities is clearly intragovernmental: since it is both paid and collected by the government, it cannot possibly affect total outlays or the deficit. But within the net interest totals, both sides of this transaction are clearly visible. Some observers point to *gross interest* payments (that is, they lump together interest paid to outside creditors and to federal government trust funds) when calling attention to debt service burdens; but in doing so, they ignore the fact that some of these outlays do not leave the government. They also ignore the fact that the federal government collects some interest income--primarily interest on its cash balances and interest on loans. *Net interest,* a more useful measure, instead pinpoints how much the federal government must actually pay to outsiders.

TABLE IV-4. CBO PROJECTIONS OF INTEREST COSTS AND FEDERAL DEBT (By fiscal year)

	1990	1991	1992	1993	1994	1995	1996
Net Interest Outlays (In billions of dollars)							
Interest on Public Debt (Gross interest)[a]	265	292	312	337	355	367	377
Interest Received by Trust Funds							
Social Security	-16	-21	-26	-31	-37	-45	-53
Other trust funds[b]	-46	-52	-54	-57	-61	-65	-68
Subtotal	-62	-73	-79	-88	-98	-109	-121
Other Interest[c]	-19	-21	-26	-30	-30	-28	-23
Total	184	198	207	219	227	230	233
Federal Debt, End of Year (In billions of dollars)							
Gross Federal Debt	3,206	3,606	4,018	4,383	4,716	4,964	5,227
Debt Held by Government Accounts							
Social Security	215	278	348	430	526	638	767
Other government accounts[b]	581	635	697	769	844	921	995
Subtotal	796	913	1,045	1,198	1,370	1,558	1,762
Debt Held by the Public	2,410	2,693	2,973	3,185	3,346	3,405	3,465
Debt Subject to Limit[d]	3,161	3,565	3,980	4,348	4,682	4,931	5,195
Federal Debt as a Percentage of GNP							
Debt Held by the Public	44.6	47.9	49.5	49.7	49.1	47.0	45.0

SOURCE: Congressional Budget Office.

NOTE: Projections of interest and debt assume compliance with the discretionary spending caps in the Budget Enforcement Act.

a. Excludes interest costs of debt issued by agencies other than the Treasury (primarily deposit insurance agencies).

b. Principally Civil Service Retirement, Military Retirement, Medicare, Unemployment Insurance, and the Highway and the Airport and Airway trust funds.

c. Primarily interest on loans to the public and to the Resolution Trust Corporation.

d. Differs from the gross federal debt primarily because most debt issued by agencies other than the Treasury (currently about $33 billion) is excluded from the debt limit.

An undue emphasis on gross interest exaggerates the burden posed by federal government debt and interest. The growth in federal debt, and the resulting debt service load, can be adequately documented by using the more accurate and appropriate measures. Table IV-4 depicts the components of net interest and the corresponding components of the federal debt.

Debt held by the public grows from $2.4 trillion at the start of 1991 to $3.5 trillion by 1996, assuming compliance with the budget summit's spending caps (see Table IV-4). As a percentage of GNP, debt held by the public will peak at almost 50 percent (the highest level since the 1950s, when an overhang of World War II-related debt still dominated the totals) before subsiding to 45 percent in 1996.

The Debt Limit

Some of the confusion and mismeasurement of federal debt stems from the statutory debt limit. The Congress enacts ceilings on Treasury debt issuance, including the securities issued to trust funds; and understandably, this is the debt figure most familiar to many policymakers. In the late summer and early fall of 1990, the Congress passed a total of six short-term increases in the debt ceiling before enacting a new, multiyear ceiling of $4,145 billion. As Table IV-4 suggests, this ceiling will probably be reached sometime during fiscal year 1993.

THE OUTLOOK FOR DEPOSIT INSURANCE SPENDING

Much of the volatility and sheer uncertainty in outlay projections stem from deposit insurance spending. In the budget, these outlays are recognized when the government resolves failed or failing institutions--even though the losses necessitating these actions may have built up for years. Compounding this mismatch between budget accounting and economic reality, some of the money expended now will be recouped later as the government sells assets that it has acquired.

Total outlays for deposit insurance in the baseline plunge from $103 billion in 1991 to a net inflow of $42 billion in 1996 (see Table

IV-5). The swings in spending can be traced largely to the Resolution Trust Corporation (RTC), created in 1989 to resolve hundreds of insolvent savings and loan institutions. The Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA), which created the RTC, capped its insurance losses--that is, money expected never to be recovered--at $50 billion, a figure now universally viewed as inadequate. The Congress last fall failed to allocate more resources to the RTC. As a stopgap, the RTC is taking advantage (with the Congress's full knowledge) of a drafting error in the 1989 legislation to continue operations for several months more, even though it has already bumped up against the intended limits on its borrowing of working capital.

Deposit insurance is a mandatory obligation of the government; having promised to protect depositors, the government must honor its past pledges. Providing inadequate funds undeniably limits short-term outlays but hardly controls the ultimate cost to the government. Since last spring, both CBO and the Administration have presented RTC projections on an unconstrained basis--that is, with additional resources beyond current law. (The Budget Enforcement Act implicitly sanctioned this approach.) Thus, the insurance losses depicted in Table IV-5 sum to $155 billion over the 1989-1996 period, more than three times the amount anticipated in the 1989 legislation. The RTC's working capital needs (that is, its temporary financing requirements) are also massive, as the agency acquires assets that it will hold for months or years before selling. As the working capital flows in Table IV-5 suggest, sales of assets are already picking up steam; but much will remain to be collected after 1996, the final year reflected in the table.

Last fall's Budget Enforcement Act drew a line between government-sponsored enterprises that may and may not be legitimately excluded from budget totals. CBO has long argued that the Resolution Funding Corporation (REFCORP)--conceived as a government-sponsored enterprise whose sole task was to borrow funds in credit markets to finance savings and loan resolutions--should not have been excluded from the budget; and CBO believes that last fall's legislation buttresses this view. The Office of Management and Budget, however,

TABLE IV-5. OUTLAYS FOR DEPOSIT INSURANCE IN THE BASELINE (By fiscal year, in billions of dollars)

	Actual 1989	Estimate 1990	1991	1992	1993	1994	1995	1996
Resolution Trust Corporation								
Insurance Losses	1	34	47	32	21	17	4	0
Working Capital								
Disbursements	9	33	67	102	87	76	9	0
Receipts	0	-3	-26	-53	-75	-82	-74	-52
Payments from Federal Home Loan Banks	-1	0	0	0	0	0	0	0
Receipts from Resolution Funding Corporation (REFCORP)	0	-18	-12	0	0	0	0	0
Interest and Administrative Expenses	a	1	5	9	14	15	14	9
Total Budget Outlays	9	47	80	90	47	26	-48	-43
Total Including REFCORP	9	65	92	90	47	26	-48	-43
Other Deposit Insurance Agencies								
Federal Savings and Loan Insurance Corporation (FSLIC)	10	b	b	b	b	b	b	b
FSLIC Resolution Fund	a	5	11	4	3	3	2	2
Savings Association Insurance Fund (SAIF)	a	a	0	-1	a	a	3	4
Bank Insurance Fund	3	6	13	4	-2	-3	-4	-6
Other[c]	a	a	a	a	a	a	a	a
Total								
Total Budget Outlays for Deposit Insurance	22	58	103	98	48	25	-47	-42
Total Including REFCORP and FICO	26	76	115	98	48	25	-47	-42

SOURCE: Congressional Budget Office.

NOTE: Budget outlays reflect the treatment of the Resolution Funding Corporation (REFCORP) and Financing Corporation (FICO), shell corporations created solely to borrow funds for savings and loan resolutions, as government-sponsored enterprises. This treatment permits their borrowing to reduce the deficit. CBO has long viewed this treatment as inappropriate. The estimates assume the provision of additional resources to the RTC beyond those available under current law.

a. Less than $500 million.

b. Defunct.

c. Primarily National Credit Union Share Administration.

has apparently concluded otherwise, and CBO has followed OMB's treatment in order to avoid confusion. Thus, $30 billion in spending by the RTC ($18 billion in 1990 and $12 billion in 1991) is effectively excluded from the budget totals. When REFCORP borrows funds, it passes them on to the Resolution Trust Corporation (an on-budget agency) where they are recorded as a collection, automatically offsetting the spending that they make possible. (A much smaller ancestor, the Financing Corporation or FICO, operated in much the same manner in the 1988-1989 period.) These off-budget arrangements have proved costly to the government, as REFCORP and FICO bonds have carried interest rates approximately one-third of a percentage point higher than comparable Treasury securities. CBO has consistently argued for an alternative approach to entities like REFCORP and FICO, maintaining that (for the sake of accuracy and comprehensiveness) they ought to be included in the budget but that deposit insurance spending merits special treatment in the selection of budgetary targets. Table IV-5 shows RTC's projected outlays as they will actually be measured, and how they would appear if this budgetary treatment were not permitted.

Several other agencies, depicted in the lower panel of Table IV-5, are also engaged in the savings and loan cleanup, succeeding the defunct Federal Savings and Loan Insurance Corporation (FSLIC). The division of responsibility revolves around whether and when savings and loan institutions come into government hands. The FSLIC Resolution Fund inherited the FSLIC's books, assuming responsibility for institutions that the government had already taken over by early 1989. The aforementioned RTC handles failed or failing institutions that the government could not afford to address before the 1989 legislation. (Because its projections are unconstrained, CBO assumes that the RTC remains active through late 1995, three years beyond the period contemplated in FIRREA.) And the Savings Association Insurance Fund (SAIF) assumes responsibility for those institutions that remain in the industry, some of which will inevitably fail.

CBO has not significantly revised its estimates of the costs of savings and loan resolutions since last summer. New information since that time generally confirms CBO's earlier estimates, although even the newest available data precede the recent economic slowdown. For purposes of summarizing the costs of the savings and loan debacle, the single most useful figure is the present value of future costs. Present value, widely used by economists and financial analysts, reflects the fact that payments and receipts will take place over many years or even decades, and expresses those future flows in today's dollars. A critical complication, though, is the fact that the pace of government actions affects the ultimate costs. Because of human and administrative constraints, the responsible agencies could not resolve the situation overnight even if they had unlimited funds; and in the meantime, marginal institutions remain in business, accumulating losses that will eventually be borne by the government. CBO thus estimates the present value of the RTC's cleanup efforts at $155 billion, for an estimated caseload of about 1,600 institutions. The FSLIC Resolution Fund, which is not as susceptible to funding delays, faces estimated costs of $60 billion.

Commercial banks (and the lesser-known savings banks), whose deposits are insured by the Bank Insurance Fund (BIF), have drawn mounting concern in the past year. CBO projects relatively high outlays for BIF in 1991 and 1992. Like the RTC itself, BIF will need legislation providing extra resources. The fund will likely become insolvent in 1992, though it will continue to receive some income (from premiums and liquidations) and enjoy access to short-term borrowing. Last fall, the Congress granted BIF's parent, the Federal Deposit Insurance Corporation, flexibility to raise premiums--a power that the summit negotiators estimated would bring in an extra $9 billion over five years. The new law also assured access to short-term working capital through the Treasury's Federal Financing Bank (in addition to BIF's existing small line of credit with the Treasury). In enacting these changes, policymakers sought to avoid at least one stumbling block of the savings and loan debacle, which was that the simple lack of financing caused delays in closing institutions and drove up costs.

For the overall 1991-1996 period, CBO expects that total BIF outlays will equal only $2 billion. But enormous flows of money underlie this projected total. Assistance to institutions totals $65 billion; miscellaneous costs (including interest) $12 billion; and income from liquidations and assessments $75 billion. BIF is assumed to take full advantage of the freedom granted last fall to raise premiums, and hence assessment income is projected to bring in $7 billion or more annually in 1992 and beyond, compared with just $3 billion in 1990.

CREDIT REFORM AND THE SPENDING PROJECTIONS

The Budget Enforcement Act reformed the budgetary treatment of federal credit programs, addressing concerns that were raised as long ago as the President's Commission on Budget Concepts in 1967. The budget, which fundamentally depicts the cash flows of the government, is ill suited to portray transactions that involve streams of loans, interest and principal repayments, and defaults over time. Before credit reform, the budget tended to exaggerate the costs of direct loan programs and to understate the costs of guarantee programs in their early years--the years that attract the keenest attention. And this distortion skewed the incentives facing policymakers. Credit reform deals with this defect by expressing the entire expected lifetime cost of a loan or guarantee--that is, its subsidy--right at the outset, while there is still opportunity to control these costs.

Subsidies in Credit Programs

At the heart of the credit reform concept is the notion of subsidy. The Federal Credit Reform Act of 1990, part of the Budget Enforcement Act, defines subsidy as "the estimated long-term cost to the government of a direct loan or loan guarantee calculated on a net present value basis, excluding administrative costs." Simply stated, the subsidy is the amount that the government expects to lose on a credit transaction.

The government engages in two broad types of credit programs: direct lending and loan guarantees. In a direct loan program, the government disburses funds to a borrower and awaits principal and interest repayments over time. In a guarantee program, the government agrees to protect another lender (such as a bank) from default; if the loan goes sour, the government honors its guarantee.

If the government made (or guaranteed) loans only to creditworthy borrowers, at interest rates high enough to cover its own cost of funds, no subsidy would exist. Clearly, subsidies generally exist because the beneficiaries of these programs are prone to default, or get a favorable rate of interest.

Before Credit Reform: The Distortions of Cash-Flow Accounting. The budget has traditionally treated disbursements and repayments for *direct loan programs* on a cash basis. When initially disbursed, a direct loan looked just as costly as a straightforward grant. This was misleading, since some or all of the loan would be repaid later.

Cash-basis accounting, in contrast, made *guarantee programs* appear inexpensive. A guarantee typically involved no budget outlays at the outset even if there was every reason to expect a future default. Perversely, if the government collected guarantee fees, these were recorded as collections; thus, even high-risk guaranteed loans could reduce the deficit at the outset.

After Credit Reform: The Subsidy Concept. Credit reform discards cash-flow accounting in favor of measuring subsidies. Starting with commitments made in fiscal year 1992, budget outlays for credit programs will reflect the expected lifetime cost of direct loans or guarantees. This new approach permits much more meaningful comparisons of credit programs with each other and with alternative means of aiding recipients--such as outright grants.

Some of the biggest subsidies, as estimated by CBO, are shown in Table IV-6. The amounts shown are consistent with CBO's baseline (that is, the projections assume full adjustment for inflation in discretionary programs between 1991 and 1992). While many of these programs are subject to the discretionary spending caps, there is no way to project how they will fare in the competition with other programs for the dollars available.

A few examples from Table IV-6 show how subsidy calculations summarize the costs inherent in federal credit programs. Leading the list of *direct loan programs* is the Rural Housing Insurance Fund,

TABLE IV-6. 1992 BASELINE SUBSIDIES AND LOAN VOLUMES FOR SELECTED CREDIT PROGRAMS

Program	Type	1992 Loans[a] (Billions of dollars)	1992 Subsidies[b] (Billions of dollars)	Subsidy Rate[c] (Percent)
Direct Loan Programs				
Rural Housing Insurance Fund	Discretionary	2.2	0.8	38
Public Law 480 (Food for Peace)	Discretionary	0.6	0.4	68
Rural Electrification Administration Direct Loans[d]	Mandatory	0.7	0.2	27
Export-Import Bank	Discretionary	0.8	0.2	21
Small Business Administration (Disaster loans)	Discretionary	0.4	0.1	31
Rural Development Insurance Fund	Discretionary	0.7	0.1	16
Agricultural Credit Insurance Fund	Mandatory	0.4	0.1	22
Other	Mixed	3.4	0.3	8
Total		9.1	2.2	24
Guaranteed Loan Programs				
Stafford Student Loans	Mandatory	12.2	3.0	25
Federal Housing Administration (General and special risk insurance)	Discretionary	6.3	0.3	5
Small Business Administration (Business loans)	Discretionary	4.2	0.2	6
Veterans Administration Loan Guaranty and Indemnity Fund	Mandatory	15.3	0.1	1
Other Subsidized Programs	Mixed	13.6	0.2	2
Federal Housing Administration (Mutual mortgage insurance)	Discretionary	44.1	-0.9	-2
Government National Mortgage Association (Sale of mortgage-backed securities)	Discretionary	83.2	-0.4	e
Total		178.9	2.7	1

SOURCE: Congressional Budget Office.

a. Commitments made in fiscal year 1992. Disbursement (by the government or by a private lender) may occur later.

b. Subsidy budget authority associated with 1992 commitments.

c. Subsidy portion as a percentage of disbursements.

d. Loans made directly by the REA at interest rates of 5 percent (2 percent for financially needy borrowers).

e. Less than 0.5 percent.

expected to commit loans with a face amount of $2.2 billion in 1992. Because interest rates on these loans are scaled to income, the subsidy rate for this program is 38 percent--that is, the government is expected to lose more than $800 million of the $2.2 billion it lends. Among *guarantee programs*, Stafford student loans pose the greatest costs to the government. The program is expected to guarantee approximately $12 billion worth of loans from private lenders in 1992, at a subsidy rate of almost 25 percent. This program's costly subsidies stem from two major sources: from the availability of subsidized interest rates, and (less important) from defaults. Students in regular four-year academic institutions--especially those who have advanced to junior or senior status--are generally good credit risks; but the government pays their entire interest costs while they are in school, and subsidizes their interest rate afterward. Students in many proprietary schools and community colleges are entitled to the same terms, but are more likely to leave school early and default on their payments. Recent legislation has curtailed this so-called high-risk sector of the program.

A few programs in Table IV-6 show negative subsidies. In these cases the government, by collecting guarantee fees and by other means (such as selling repossessed property), more than covers its costs. (A key reason that CBO estimates negative subsidies for these programs is that the law explicitly bars the inclusion of administrative costs in the subsidy estimates.) Leading this list are the mutual mortgage insurance program of the Federal Housing Administration (FHA) and guarantees of mortgage-backed securities by the Government National Mortgage Association (GNMA, or Ginnie Mae).

Congressional Control Over Credit Programs. Until now, discretionary credit programs have typically been controlled simply by setting caps on gross activity--that is, the total volume of direct loan or guarantee commitments--in appropriation acts. Often, these caps hardly mattered because they far exceeded loan demand. Moreover, the limits bore no direct relationship to the government's losses.

Under credit reform, the Congress must explicitly appropriate the subsidies for discretionary programs. A subsidy dollar will be no different from a dollar for an ordinary, noncredit appropriation (such as a grant), a change that is meant to ensure a level playing field for many different types of spending.

Some credit programs, notably Stafford student loans, are part of the entitlement and mandatory spending cluster, and are outside the reach of appropriation action. As before, the Congress will control spending by setting the terms and conditions of such programs. But subsidy estimates will now form the basis of future projections for these programs, and will be used to estimate the costs of competing proposals.

Past and Future Cash Flows: Where Do They Fit?

Credit reform is prospective only, applying to new commitments starting in fiscal year 1992. Of course, it requires distinguishing between so-called old activity (loans and guarantees that stem from pre-1992 commitments) and new activity (post-1991 commitments). For a fairly long transition period, the two will be treated in dissimilar fashions.

Old Activity. Cash flows from old (pre-1992) commitments will be quite large for several years to come; CBO estimates that they will amount to about $12 billion in 1992, though they quickly shrink to $3 billion in 1996. Congressional ability to exert meaningful control over these cash flows has long since passed. Unlike subsidies, they require little or nothing in the way of decisionmaking. They will remain on a cash basis in future budgets. Because they are essentially uncontrollable, they have been moved wholesale into the mandatory spending cluster--even if they occur in otherwise discretionary programs.

New Activity. As noted earlier, credit reform focuses on the subsidies rather than the cash flows associated with future commitments. Including the cash flows in budget totals would thwart credit reform's goal of focusing attention on these subsidy costs. But the cash flows clearly are part of the government's overall financial picture and will contribute to its borrowing needs. They will be reflected in so-called financing accounts, outside the official budget totals.

The Impact of Credit Reform on Budget Totals

The impact of credit reform on budget totals is not obvious at the outset. As a rule, the initial costs of direct loan programs will be smaller under credit reform, while initial costs of guarantee programs will be greater. Clearly, the impact on budget totals from adopting a new accounting system will depend on the mix of direct and guaranteed activity and on the terms and conditions of these loans.

In fact, credit reform boosts total outlays in the current CBO baseline by $2 billion to $3 billion in 1992 and 1993, but by smaller (or negative) amounts in later years, compared with the old cash-based accounting. This pattern emerges because credit reform increases the outlays ascribed to guarantee programs in the initial years, and guarantees are by far the dominant form of federal credit assistance. These magnitudes, however, are markedly smaller than some estimates that were circulated when credit reform first gained momentum. One reason is that federal government credit activity, and especially the volume of deeply subsidized activity, is down from its peak of the late 1970s and early 1980s.

Credit reform undeniably leads to a discontinuity in the budget data beginning in 1992. This discontinuity is small in the aggregate, though it is more pronounced for individual programs or spending categories. (For example, the decision to treat future cash flows from old commitments as essentially uncontrollable causes a temporary boost in mandatory spending, while depressing the discretionary category.) Special adjustments to the discretionary appropriations cap, outlined in Appendix A, protect the Appropriations Committees against inadvertent changes in their allowable spending as a result of credit reform.

Last year's reconciliation act directed the Office of Management and Budget to review historical budget data and, to the extent possible, develop adjustments to these data. But the task is a formidable one, and it is not yet clear what will come of the effort.

CHAPTER V

THE REVENUE OUTLOOK

Much of the discussion on the budget during 1990 centered on issues of tax policy. First, there was the issue of whether tax increases should be a part of the deficit reduction plan at all. Once this was resolved, attention focused on the issues of the share of deficit reduction contributed by increased taxes and the distributional consequences of these taxes. In the end, close to one-third of the deficit reduction enacted in the Omnibus Budget Reconciliation Act of 1990 (also referred to as the reconciliation act) was contributed by tax increases through higher excise taxes and increases in income and payroll taxes paid by upper-income taxpayers. Expanded income tax credits were provided for lower-income families with children.

On balance, the tax system was made more progressive, since effective tax rates for the lowest fifth of taxpayers were reduced, while those for the highest fifth were increased. Although the tax increases in the reconciliation act are the largest since 1982, the act's effects on the composition and distribution of taxes are modest, and growth in revenues is projected to do no more than keep pace with growth in the gross national product (GNP) over the next six years.

Both the reconciliation act and the rapid weakening of the economy in late 1990 have altered revenue prospects since the Congressional Budget Office's projections in July 1990. Despite the substantial tax increases in the reconciliation act, projected revenues are below the levels in the July baseline in every year through 1995. Not until the end of the period do the tax increases of the act almost cancel out the reduction in revenues brought about by the slowdown in the economy and other factors.

BASELINE PROJECTIONS AND REVENUE TRENDS

Baseline revenues are projected to increase 6 percent this year, to $1,094 billion, and 7 percent in 1992, to $1,170 billion (see Table V-1). Over the medium term, revenue growth just keeps pace with growth in GNP. Despite the recession, revenues will increase from 19.1 percent of GNP in 1990 to 19.4 percent in 1991 as a result of the tax in-

TABLE V-1. CBO BASELINE REVENUE PROJECTIONS BY SOURCE (By fiscal year)

Major Source	Actual 1990	Base 1991	Projected 1992	Projected 1993	Projected 1994	Projected 1995	Projected 1996
			In Billions of Dollars				
Individual Income	467	489	529	569	612	660	705
Corporate Income	94	99	103	107	109	109	111
Social Insurance	380	404	433	464	496	528	560
Excise	35	46	49	53	54	56	54
Estate and Gift	12	12	13	13	14	14	15
Customs Duties	17	17	18	20	21	22	24
Miscellaneous Receipts	27	26	25	26	26	27	27
Total	1,031	1,094	1,170	1,251	1,332	1,416	1,496
On-budget	750	794	851	910	967	1,026	1,081
Off-budget	282	300	319	341	365	390	416
			As a Percentage of GNP				
Individual Income	8.6	8.7	8.8	8.9	9.0	9.1	9.1
Corporate Income	1.7	1.8	1.7	1.7	1.6	1.5	1.4
Social Insurance	7.0	7.2	7.2	7.2	7.3	7.3	7.3
Excise	0.7	0.8	0.8	0.8	0.8	0.8	0.7
Estate and Gift	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Customs Duties	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Miscellaneous Receipts	0.5	0.5	0.4	0.4	0.4	0.4	0.4
Total	19.1	19.4	19.5	19.5	19.5	19.5	19.4
On-budget	13.9	14.1	14.2	14.2	14.2	14.2	14.0
Off-budget	5.2	5.3	5.3	5.3	5.4	5.4	5.4

SOURCE: Congressional Budget Office.

creases in the reconciliation act, and remain close to 19.5 percent through 1996.

Changes from the July 1990 Baseline

Overall, baseline revenues have been reduced relative to CBO's July projections by $29 billion in 1991, $18 billion in 1992, and decreasing amounts thereafter. In 1995, baseline revenues are only $1 billion below the July level. Tax increases in the reconciliation act will add $18 billion to revenues in 1991, $33 billion in 1992, and more than $30 billion per year through 1996. However, the short recession weakens personal income and corporate profits, reducing revenues relative to the July baseline by about $40 billion per year. Overall, the reductions in revenues caused by the weak economy outweigh the increases generated by the reconciliation act.

Other legislation enacted at the end of the 101st Congress increased revenues by about $1 billion per year. Among other changes, this legislation increased visa fees, provided preferential tariff treatment to additional products and to Caribbean Basin countries and Czechoslovakia, and gave the Internal Revenue Service more money to enforce the tax laws.

Technical revisions since July are small. Revisions in personal income taxes are positive in each year after 1991. Newly available data for 1988, the first year reflecting the full effects of the Tax Reform Act of 1986, indicate that taxable incomes were higher than estimated. This increase more than offsets a reduction in projected capital gains, resulting from new data confirming unexpectedly low realizations of gains in 1989.

For several years, corporate income taxes have been lower than CBO's projections. As a result, technical revisions in corporate income taxes are negative in each year of the current baseline. Other technical revisions are minor.

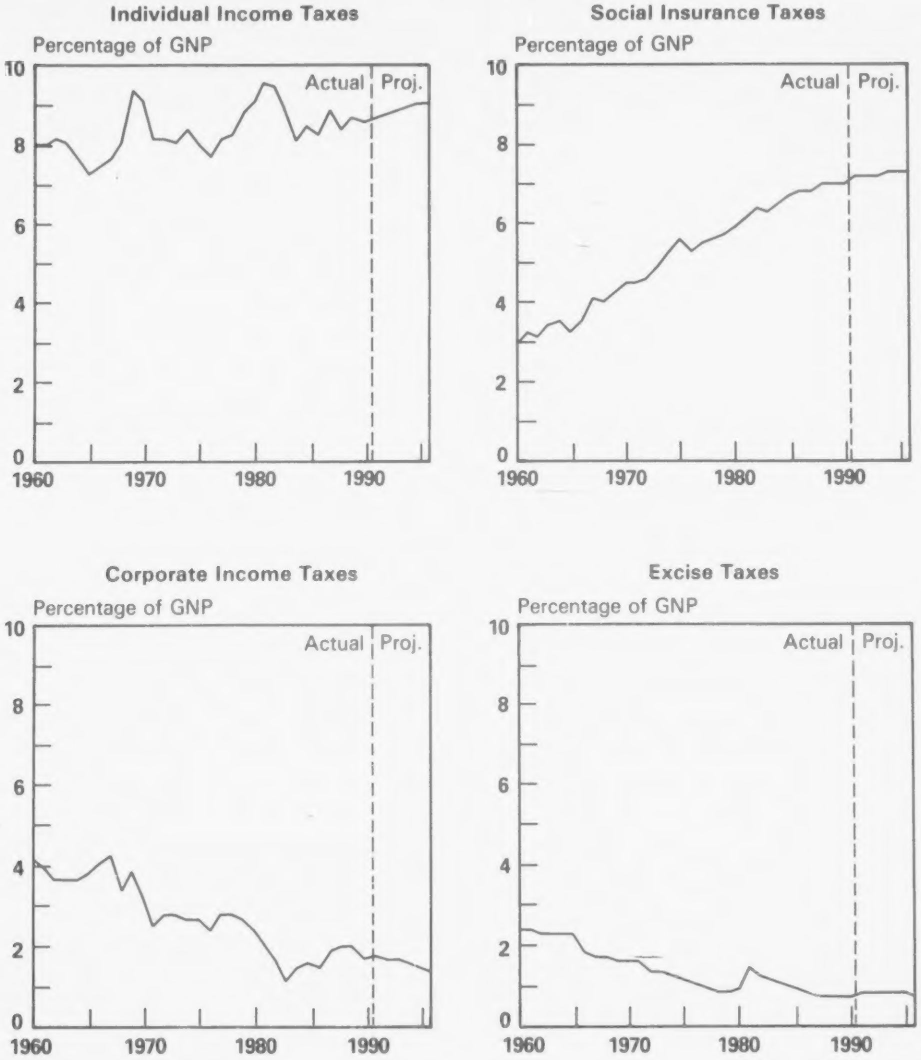
Trends in Federal Government Tax Sources

The share of GNP claimed by taxes over the longer term indicates the trend in the overall burden of providing government services, and provides a context for the baseline projections. By this measure, the federal tax burden will be high over the 1991-1996 period. The 19.5 percent average share will be a historically high six-year revenue claim on GNP. The next highest six-year average claim was 19.2 percent over the 1977-1982 period. The individual income tax share of GNP reached its highest postwar levels in 1981 and 1982 because rapid inflation in the 1979-1981 period boosted nominal incomes and pushed taxpayers' incomes into higher tax brackets ("bracket creep"). Income tax bracket amounts and the standard deduction and personal exemption are now indexed for inflation, removing inflationary bracket creep from the system.

Tax increases enacted in the reconciliation act raise the revenue share of GNP by 0.5 percent a year from 1992 to 1995, and by 0.4 percent in 1996 after important revenue-raising provisions expire. This boost in revenues, however, does not greatly alter the GNP shares of the major tax sources that were projected for this period before the act. Personal taxes--income plus payroll taxes--provide most of the tax dollars, and their revenues continue to grow faster than GNP from 1991 to 1996 (see Figure V-1). The reconciliation act increases revenues from these taxes by relatively small amounts: the individual income tax share rises to the third highest peak since World War II, and the payroll tax share rises slightly, but more slowly than in the past.

Increases in corporate income taxes resulting from the reconciliation act, about $1 billion per year overall, are not large enough to affect the tax's declining share of GNP. Corporate revenues have been growing more slowly than GNP since the early 1950s because of both a decline in the corporate tax base as a share of GNP and legislated reductions in tax liability. The corporate tax share dropped from 1989 to 1990, reflecting weakening profit growth. (Following the Tax Reform Act of 1986, corporate taxes had claimed a temporarily higher share from 1987 to 1989.) Aside from a one-time increase in 1991, the corpo-

Figure V-I.
Revenue by Source as Shares of GNP



SOURCE: Congressional Budget Office.

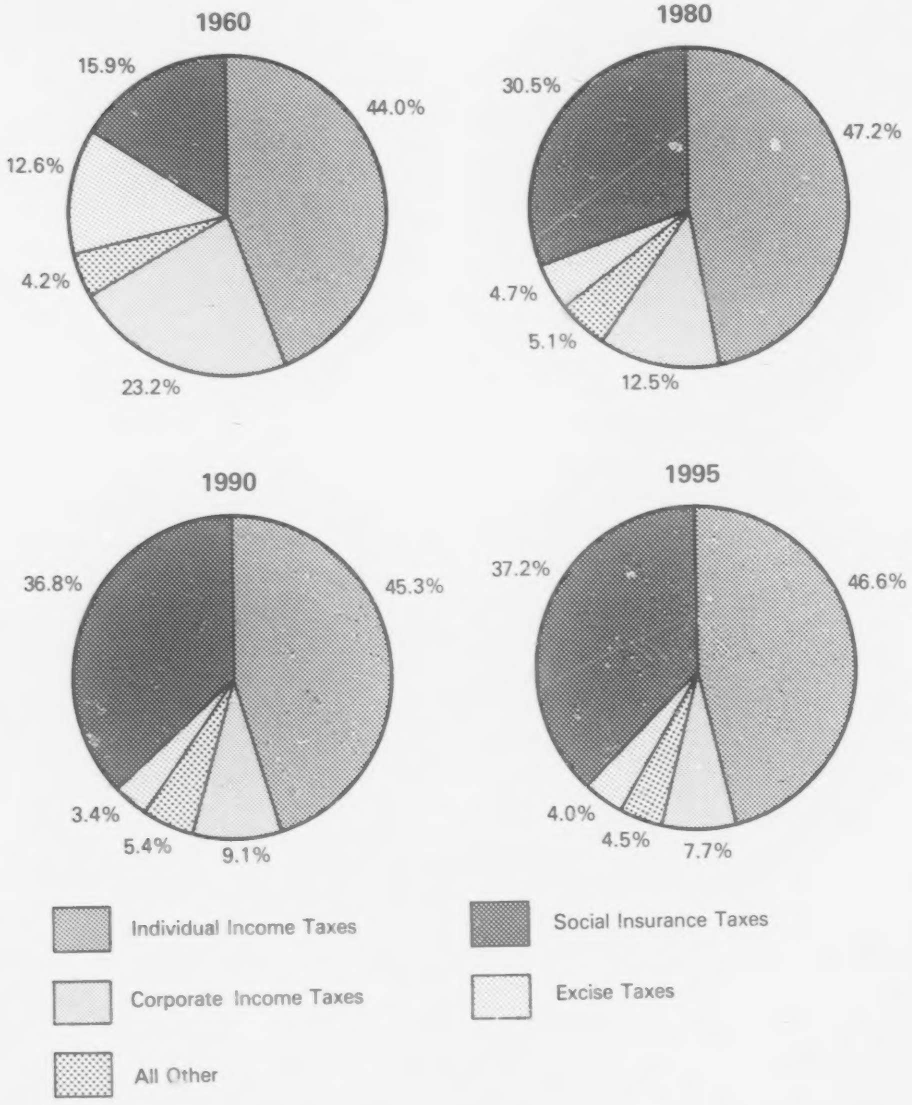
rate share will decline through 1996 as profits continue to grow more slowly than GNP. By 1996, the share is projected to reach its lowest level since 1983, the year after the last recession.

The reconciliation act increases excise taxes: by 1995, excise tax receipts are projected to be 60 percent above the level estimated under prior law. Nonetheless, the share of GNP claimed by excise taxes will be only temporarily restored to the somewhat higher share of the late 1970s. Revenues from excise taxes have declined steadily as a share of GNP for many years, and the reconciliation act slows but does not reverse the trend. The enactment in 1980 of the windfall profit tax on oil produced the only recent break in the trend. The share falls mostly because many excise taxes are levied on a per-unit basis and, therefore, collections increase with the volume of taxed goods, not with total sales which rise more quickly. As a result, excise revenues fail to keep pace with GNP. Furthermore, legislation has seldom changed major excise taxes in recent years. The reconciliation act, with its significant dependence on excise taxes for increased revenues, represents a departure from recent tax legislation.

These long-term differences in the growth rates of the various tax sources have dramatically changed the composition of the federal tax dollar. Over the past 30 years, the importance of social insurance taxes has increased substantially, in concert with the growth in benefits provided to current retirees and scheduled for future retirees (see Figure V-2). The importance of individual income taxes, by far the largest tax source since World War II, has also increased over the period, but by much less. The excise tax share of the tax dollar has been small for a long time and continues to decrease. The corporate income tax share was significant in 1960, at 23 percent of total revenues, but it has dropped the most, to 9 percent of revenues in 1990.

The reconciliation act shifts the composition of revenues slightly but has little noticeable effect on the established trends. In 1995, before important revenue-raising provisions expire, 4 cents of the tax dollar will come from excise taxes, up very slightly from more than 3 cents in 1990. Without the reconciliation act, the excise share would fall to 2.5 cents in 1995. The share of the federal tax dollar provided by

Figure V-2.
Composition of Revenues



personal taxes will rise from 82 cents in 1990 to 84 cents in 1995. Without the changes made by the reconciliation act, personal taxes would account for 85 cents of the tax dollar in 1995. The modest corporate tax share, which drops from 9 cents of the tax dollar in 1990 to 8 cents in 1995, is relatively unaffected by the new legislation.

Assumptions in the Revenue Baseline

Baseline projections for revenues assume that current tax law remains unchanged. Under current law, some provisions are scheduled to change or expire during the 1991-1996 period, either on a specified date or when a statutorily defined condition is met. The baseline assumes that these changes and expirations occur on schedule.

One category of taxes--excise taxes dedicated to trust funds--is an exception to this rule. These excise taxes, even if scheduled to expire, are extended through 1996 in the baseline. Five types of excise taxes are extended under the exception: highway taxes, aviation taxes, Superfund taxes, and taxes to clean up oil spills and leaking underground storage tanks.

Expiring Tax Preferences and the Pay-As-You-Go Requirement

During the 1991-1996 period, 13 tax preferences will expire. Although the baseline assumes that these preferences will expire on schedule, recent history suggests otherwise. All of the provisions that will expire during 1991 and 1992 have been extended at least twice, most recently in the reconciliation act, and four preferences have been extended five times or more. Thus, the Congress is likely to consider extending expiring tax preferences again. If any of these preferences is extended, the new pay-as-you-go rules in the reconciliation act will require, for the first time, that the resulting revenue loss be offset by an increase in another revenue source or an entitlement reduction. The 102d Congress is likely to debate this trade-off, because 11 of the 13 provisions will expire by the end of this year and the offsetting revenue amounts required will be substantial. For example, extending all the tax pref-

TABLE V-2. REVENUE LOSSES FROM EXTENSION OF EXPIRING TAX PREFERENCES: FULL-YEAR EFFECTS IN 1993 (In billions of dollars)

Tax Preference	Fiscal Year 1993 Revenue Loss
Exclusion for Employer-Provided Educational Assistance	-0.4
Exclusion for Employer-Provided Legal Assistance	-0.1
Deduction for Health Insurance Premiums Paid by the Self-Employed	-0.3
Credit for Investments in Low-Income Rental Housing	-0.4
Exemption for Earnings on Mortgage Revenue Bonds	-0.1
Exemption for Earnings on Small-Issue Manufacturing Bonds	-0.1
Credit for Research and Experimentation Expenses	-1.1
Rules for Allocation of Expenses for Research and Experimentation	-0.9
Targeted Jobs Credit	-0.2
Business Energy Credits	-0.1
Nonconventional Fuels Credit	-0.1
Orphan Drug Credit	a
Total	-3.8

SOURCE: Congressional Budget Office, based on estimates by the Joint Committee on Taxation.

NOTES: All of these tax preferences are scheduled to expire on or before December 31, 1991, with one exception: the nonconventional fuels credit, which expires on December 31, 1992. Extension of the preferences that expire in 1991 would result in revenue losses in 1992 as well. The only expiring provision not shown in the table is a deduction for contributions of stock to foundations, which expires on December 31, 1994.

a. Less than $50 million.

erences scheduled to expire at or before the end of 1992 would require offsetting revenue increases or entitlement cuts totaling almost $4 billion at 1993 income levels (see Table V-2).

THE OMNIBUS BUDGET RECONCILIATION ACT OF 1990

Roughly one-third of the deficit reduction enacted in the reconciliation act, or $156 billion over the 1991-1995 period, will take the form of increased taxes (see Table V-3). The act increases income, payroll, and excise taxes, although increased credits for lower-income families offset some of the additional revenue. The act also extends some expiring tax preferences for one or two years and provides new preferences for energy-producing companies and small businesses.

Higher excise taxes account for about half of the additional tax dollars. Increases in existing excise taxes include a 5-cents-per-gallon increase in taxes on motor fuels, a doubling of the gas guzzler tax, increases in taxes on alcoholic beverages, a 50 percent increase in taxes on tobacco products, an increase in the harbor maintenance tax, increases in aviation taxes (including repeal of the automatic reduction in tax rates previously scheduled to take effect this fiscal year), and additions to the list of ozone-depleting chemicals subject to tax. The telephone tax was made permanent, and expired taxes levied to clean up leaking underground storage tanks were reimposed. A new 10 percent luxury tax was imposed on the excess of the sales price over cer-

TABLE V-3. OMNIBUS BUDGET RECONCILIATION ACT OF 1990, REVENUE EFFECTS BY TAX SOURCE
(By fiscal year, in billions of dollars)

	1991	1992	1993	1994	1995	1996
Individual Income	-0.9	3.9	1.7	4.0	4.6	3.9
Corporate Income	2.2	0.8	1.1	1.0	0.8	0.7
Social Insurance	3.2	10.1	7.9	10.1	10.7	10.4
Excise	13.1	18.0	19.9	20.6	21.4	18.6
Estate and Gift	a	a	-0.1	-0.3	-0.4	-0.7
Customs Duties	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous Receipts	0.2	0.3	0.6	0.6	0.7	0.3
Total	17.9	33.0	31.1	36.0	37.8	33.2
Refundable Portion of Earned Income Tax Credit[b]	0.2	2.5	3.2	4.1	6.7	6.9
Total Effect on Deficit	-17.7	-30.4	-28.0	-32.0	-31.1	-26.2

SOURCE: Congressional Budget Office, based on estimates by the Joint Committee on Taxation.

a. Less than $50 million.

b. Classified as an outlay.

tain limits of automobiles, boats, aircraft, jewelry, and furs. In all, these measures increase excise receipts by about $20 billion per year.

For the first time since the Highway Trust Fund was established in 1956, not all highway tax receipts will be deposited in the trust fund. Revenue from 2.5 cents of the 5-cents-per-gallon increase in the motor fuel taxes will remain in the general fund. The baseline assumes that this portion of the tax expires on schedule at the end of fiscal year 1995.

The maximum taxable wage subject to the 1.45 percent tax for Hospital Insurance (Part A of Medicare) was increased from $53,400 to $125,000 for 1991. The maximum continues to be indexed for wage increases. Ninety-five percent of all wages earned by workers paying Hospital Insurance taxes will now be subject to the tax, up from 89 percent in 1990. This change will raise about $6 billion per year in additional revenue.

Social Security coverage is now mandatory for all employees of state and local governments unless they are members of their employers' retirement plan, raising $2 billion per year in additional revenue. By the time they retire, most of these employees will qualify for Social Security benefits through other jobs or through their spouses' jobs. Future increases in benefit payments stemming from the expanded coverage will, therefore, be small.

The reconciliation act extended the 0.2 percent surtax paid by employers to help fund Unemployment Insurance under the Federal Unemployment Tax Act. This surtax will raise about $1 billion each year through 1995, after which it expires.

Income taxes have been increased for upper-income taxpayers through three provisions: a higher top tax rate, a revised phaseout of personal exemptions, and a limit on itemized deductions. Before the reconciliation act, the benefit of the 15 percent tax bracket and personal exemptions was phased out by means of a surtax on taxable income above a floor. This created an implicit higher marginal rate of 33 percent on income in the phaseout range. For income above the phaseout range, the marginal tax rate was 28 percent. The reconciliation act repealed the surtax and imposed a statutory rate of 31 percent on all income (except capital gains) above limits virtually identical to the beginning of the old phaseout range. In addition, the alternative minimum tax rate was raised from 21 percent to 24 percent.

The reconciliation act also phases out the benefit of personal exemptions above an adjusted gross income (AGI) floor. The phaseout begins at $150,000 of AGI for joint filers ($100,000 for single filers), and proceeds at a rate of 2 percent per $2,500 of additional AGI. In addition, itemized deductions are now reduced by 3 percent of the amount by which a taxpayer's AGI exceeds $100,000, up to a maximum reduction of 80 percent of the originally allowable amount. Deductions for medical expenses, casualty and theft losses, and investment interest are exempt from the reduction.

In total, these three provisions will raise the taxes of about 2 percent of taxpayers while lowering the taxes of another 2 percent. Together they will bring in about $10 billion per year. The phaseout of personal exemptions and the limitation on itemized deductions expire for tax years beginning after 1995.

The reconciliation act significantly expanded the earned income tax credit (EITC) for lower-income families with children. In addition to increasing the amount of the existing EITC, the act further increased the credit for families with children under the age of one, and provided a new credit for expenditures on health insurance premiums for children. These credits are refundable. (The refundable portion of the credit is recorded as an outlay in the budget.) The EITC expansion provides $18 billion to lower-income families over the 1991-1995 period.

Changes in corporate income taxes will raise about $1 billion in revenue per year. The largest source of additional receipts is a new requirement that deductions for certain acquisition expenses of insurance companies be spread over time instead of completely taken in the first year. An increase in the rate of interest owed on tax underpayments will raise receipts in 1991. Other increases in corporate taxes result from allowing the use of excess pension assets to fund retirees' health benefits, tightening the rules for deductions by insurance companies of losses with salvage value, and refining a number of other tax rules.

Expiring Provisions of the Reconciliation Act

Four revenue-raising provisions of the reconciliation act will expire in 1995, holding down the growth in baseline revenues in 1996: the phaseout of personal exemptions and the limit on itemized deductions in the individual income tax, 2.5 cents of the 5-cents-per-gallon increase in taxes on motor fuels, and the 0.2 percent Federal Unemployment Tax Act surcharge. In total, the loss of these revenue sources puts 1996 baseline revenues $7 billion below what they would be if the provisions were permanent. A full year's effect of their expiration, measured at 1996 income levels, would be a $14 billion reduction in revenues.

THE CHANGING DISTRIBUTION OF TAXES

The reconciliation act will have a modest effect on the distribution of federal taxes. Many provisions in the act were designed to increase the progressivity of federal taxes (including much higher refundable credits for lower-income families with earnings, if they have children, and higher income and payroll taxes for upper-income families); however, other revenue provisions (particularly increases in federal excise taxes) will tend to increase taxes relatively more for middle- and lower-income families.

The distribution of taxes is said to be progressive if the ratio of taxes to income rises as incomes rise; to be regressive if the ratio falls as incomes rise; and to be proportional if the ratio is the same at all income levels. Changes in progressivity depend on changes in the distribution of income before tax as well as changes in the distribution of taxes.

The reconciliation act increases the progressivity of the federal tax system--continuing in the direction begun under the Tax Reform Act of 1986. Between 1980 and 1985, federal taxes became less progressive.

The effective tax rate (the percentage of family income paid in taxes) for the one-fifth (quintile) of people in the highest-income families fell from 27.3 percent to 24.0 percent, while the effective tax rate for people in the lowest income quintile rose from 8.4 percent to 10.6 percent (see Table V-4).

These changes were the result of different movements in the distribution of effective tax rates for each federal tax source. Between 1980 and 1985, effective social insurance and excise tax rates rose for all families. The rise in the social insurance tax rate reflected increases in the Social Security payroll tax rate and in the maximum amount of earnings subject to the tax, enacted in the Social Security Amendments of 1977 and 1983; the rise in effective excise tax rates resulted from increases in the federal tax on cigarettes, gasoline, and telephone service. While these tax rates were rising, effective individual and corporate income tax rates were falling for most families. However, effective individual income tax rates did not fall for families in the bottom third of the income distribution. The changes in effective individual income tax rates resulted largely from the Economic Recovery Tax Act of 1981, which substantially reduced statutory tax rates and increased allowable deductions, but failed to offset the effect on

TABLE V-4. EFFECTIVE FEDERAL TAX RATES

	Income Quintile				
Year	Lowest	Second	Middle	Fourth	Highest
1977	9.5	15.6	19.6	21.9	27.1
1980	8.4	15.7	20.0	23.0	27.3
1985	10.6	16.1	19.3	21.7	24.0
Projected Rates for 1991					
Before OBRA	9.5	16.6	20.2	22.5	26.0
After OBRA	8.8	16.8	20.7	23.0	26.8

SOURCE: Congressional Budget Office simulation models.

NOTE: OBRA = Omnibus Budget Reconciliation Act of 1990.

lower-income families of an inflation-induced decline in the real value of personal exemptions, zero bracket amounts (standard deductions), and the EITC.

Most of the reduction in progressivity resulted from the increase in payroll taxes and the decrease in individual income taxes. The individual income tax is a highly progressive tax, while social insurance payroll taxes are much less progressive over much of the income distribution and even regressive in the highest-income range. A shift from income to payroll taxes, therefore, reduces the progressivity of total federal taxes.

The Tax Reform Act of 1986 made changes that will render the individual income tax system more progressive in 1991 than it was in 1985. Measured before the effects of the reconciliation act, the effective tax rate for people with the highest incomes was projected to rise from 24.0 percent in 1985 to 26.0 percent in 1991, while the effective tax rate for people in the lowest income quintile was projected to fall from 10.6 percent to 9.5 percent. The reduced effective tax rate for lower-income families stems from the increases in the standard deduction, personal exemptions, and the EITC enacted in the Tax Reform Act.

The reconciliation act is projected to further lower effective tax rates for families with the lowest incomes and to raise slightly the effective tax rates for upper-income families. Families with the very highest incomes--the top 1 percent--will have the greatest increase in effective tax rates. The reductions for lower-income families are achieved through the expansion in the EITC, while the increases for families with the highest incomes reflect the higher top income tax rate, the phaseout of personal exemptions and itemized deductions, and the higher taxable wage base for the Hospital Insurance payroll tax. Although the 1990 tax changes are modest compared with the effects of the Tax Reform Act, the net result of all of these changes will be to restore the progressivity of the federal tax system to about where it was at the beginning of the last decade.

APPENDIXES

APPENDIX A

SEQUESTRATION PREVIEW REPORT

The Budget Enforcement Act of 1990 amended the Balanced Budget and Emergency Deficit Control Act of 1985 to add new enforcement mechanisms for entitlement spending, receipts, and discretionary spending for fiscal years 1991 through 1995. The law requires the Congressional Budget Office to issue a sequestration preview report five days before the President's budget submission. This year's preview report must contain estimates of the following items:

- The discretionary spending limits and any adjustments to those limits,
- The amount by which direct spending or receipt legislation enacted after the Budget Enforcement Act has increased or decreased the deficit, and
- The maximum deficit amount.

This appendix provides the required information. Chapter II of this volume summarizes the provisions of the Budget Enforcement Act.

DISCRETIONARY SEQUESTRATION REPORT

CBO's estimates of the limits on discretionary spending in the three categories--defense, international, and domestic--for fiscal years 1991, 1992, and 1993 are shown in Table A-1. Table A-2 provides CBO's estimates of the limits on total discretionary spending for fiscal years 1994 and 1995.

In its November 6, 1990, sequestration report, CBO adjusted the limits for fiscal year 1991 for Internal Revenue Service funding, debt

TABLE A-1. CBO ESTIMATES OF DISCRETIONARY SPENDING LIMITS FOR FISCAL YEARS 1991, 1992, AND 1993

(In millions of dollars)

	1991		1992		1993	
	Budget Authority	Outlays	Budget Authority	Outlays	Budget Authority	Outlays
Defense Discretionary						
Enacted Limits	288,918	297,660	291,643	295,744	291,785	292,686
Adjustments						
Emergency 1990 appropriations	1,000	1,164	0	328	0	77
Change in 1990 inflation	n.a.	n.a.	-302	-192	-314	-256
Total	1,000	1,164	-302	136	-314	-179
Limits as of January 30, 1991	289,918	298,824	291,341	295,880	291,471	292,507
International Discretionary						
Enacted Limits	20,100	18,600	20,500	19,100	21,400	19,600
Adjustments						
Debt forgiveness	0	100	0	129	0	167
Credit reform	n.a.	n.a.	-452	-340	-469	-35
Change in 1990 inflation	n.a.	n.a.	-21	-10	-21	-14
Total	0	100	-473	-221	-490	118
Limits as of January 30, 1991	20,100	18,700	20,027	18,879	20,910	19,718
Domestic Discretionary						
Enacted Limits	182,700	198,100	191,300	210,100	198,300	221,700
Adjustments						
IRS 1991 funding	191	183	0	8	0	0
Credit reform	n.a.	n.a.	1,045	-282	687	-161
Category changes						
Nuclear Regulatory Commission fees	n.a.	n.a.	-307	-307	-321	-321
Tongass timber supply	n.a.	n.a.	46	30	48	47
Forest Service permanent appropriations	n.a.	n.a.	0	-28	0	0
Temporary emergency food assistance program	n.a.	n.a.	120	120	125	125
Commodities for soup kitchens	n.a.	n.a.	33	33	34	34
Interim assistance to states	n.a.	n.a.	-584	0	0	0
Other changes in concepts						
Trust fund budget authority	n.a.	n.a.	5,788	0	6,072	0
Lease-purchase arrangements	n.a.	n.a.	0	436	0	495
Social Security off-budget	n.a.	n.a.	0	-2,462	0	-2,589
Change in 1990 inflation	n.a.	n.a.	-199	-109	-206	-173
Total	191	183	5,942	-2,561	6,439	-2,543
Limits as of January 30, 1991	182,891	198,283	197,242	207,539	204,739	219,157

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

forgiveness, and emergency appropriations for Operation Desert Shield, as provided in section 251(b)(2) of the amended Balanced Budget Act. Tables A-1 and A-2 show the corresponding adjustments for later years. CBO has now made further adjustments to the limits for changes in budgetary concepts and definitions and changes in inflation, as provided in section 251(b)(1).

TABLE A-2. CBO ESTIMATES OF DISCRETIONARY SPENDING LIMITS FOR FISCAL YEARS 1994 AND 1995
(In millions of dollars)

	1994		1995	
	Budget Authority	Outlays	Budget Authority	Outlays
Enacted Limits	510,800	534,800	517,700	540,800
Adjustments				
Emergency 1990 appropriations	0	21	0	0
Debt forgiveness	0	210	0	231
Credit reform	257	90	323	80
Category changes				
Nuclear Regulatory Commission fees	-337	-337	-353	-353
Tongass timber supply	51	50	53	52
Temporary emergency food assistance program	129	129	135	135
Commodities for soup kitchens	36	36	37	37
Other changes in concepts				
Trust fund budget authority	6,352	0	6,752	0
Lease-purchase arrangements	0	641	0	174
Social Security off-budget	0	-2,719	0	-2,856
Change in 1990 inflation	-564	-516	-590	-562
Total	5,924	-2,395	6,357	-3,062
Limits as of January 30, 1991	516,724	532,405	524,057	537,738

SOURCE: Congressional Budget Office.

Changes in Concepts and Definitions

The Budget Enforcement Act made various changes in budgetary concepts and definitions. The act provides that the discretionary limits shall be adjusted for these and other conceptual changes.

Credit Reform. The Federal Credit Reform Act of 1990 ends cash-flow accounting and institutes subsidy-cost accounting for federal credit programs. Starting in fiscal year 1992, subsidy costs for discretionary credit programs will be subject to annual appropriation and will be included in the discretionary spending limits. The act also provides permanent, indefinite spending authority to liquidate credit obligations incurred before 1992. These changes will sometimes increase and sometimes decrease discretionary budget authority and outlays. Tables A-1 and A-2 show the adjustments that CBO estimates should be made to the discretionary spending limits so that the Appropriations Committees are not advantaged or disadvangtaged by credit reform.

Category Changes. Recent legislation has reclassified three mandatory programs as discretionary--the Tongass timber supply fund, the temporary emergency food assistance program, and commodities for soup kitchens. The discretionary spending limits must be correspondingly increased.

In two cases--Forest Service permanent appropriations, and interim assistance to states for legalization of aliens--1991 appropriation acts increased 1992 spending for mandatory programs. Also, the reconciliation act increased Nuclear Regulatory Commission cost-recovery fees, which will be treated as percentage offsets to discretionary appropriations. The discretionary spending limits must be reduced so that the Appropriations Committees are held responsible for their actions and do not benefit from actions of other Congressional committees.

Other Changes. Three other conceptual changes also require adjustments to the discretionary spending limits. First, the Budget Enforcement Act provides that authority to pay administrative expenses from the Hospital Insurance, Supplementary Medical Insurance, Unemployment Insurance, and Railroad Retirement trust funds shall now be counted as budget authority, thus requiring an increase in the budget authority limits.

Second, Congressional scoring of the 1991 appropriation bills assumed that 10 federal office buildings would be acquired under lease-purchase arrangements, which would have had little immediate effect on outlays under the 1991 scorekeeping rules. Under the new scorekeeping procedures, however, outlays for a lease-purchase will be recorded when the building is built. Although the Administration has now decided to build the 10 buildings using funds borrowed from the Treasury's Federal Financing Bank, the budgetary effect will be the same as a lease-purchase, and the discretionary outlay limits must therefore be increased.

Third, section 13301 of the Budget Enforcement Act provides that the receipts and disbursements of the Social Security retirement and disability trust funds shall not be counted as new budget authority or outlays for purposes of the President's budget, the Congressional budget, or the Balanced Budget Act. Excluding Social Security administrative expenses from the budget requires a reduction in the discretionary spending limits.

Change in 1990 Inflation

The discretionary spending limits are also adjusted for differences between actual and expected inflation for the most recently completed fiscal year. The Budget Enforcement Act assumed that the gross national product implicit price deflator would increase by 4.1 percent in fiscal year 1990. The actual increase was only 4.0 percent. This difference requires a small reduction in the spending caps for all years.

PAY-AS-YOU-GO SEQUESTRATION REPORT

Since the enactment of the Budget Enforcement Act, no direct spending or receipt legislation has~~-been en~~acted that would increase or decrease the deficit in fiscal year 1991 or 1992. Therefore, no net deficit increase or decrease exists for those years, and no sequestration is needed to comply with the pay-as-you-go requirement.

DEFICIT SEQUESTRATION REPORT

The estimated maximum deficit amounts equal the projected on-budget baseline deficits, assuming that discretionary spending is held to the adjusted limits (less any net deficit increases or decreases resulting from direct spending or receipt legislation). Using the economic forecast described in Chapter I of this volume and CBO's current technical estimating assumptions, the maximum deficit amounts are:

Fiscal Year	Maximum Deficit Amount
1992	$353 billion
1993	$292 billion
1994	$256 billion
1995	$169 billion

These figures exclude the special budget authority allowances, which will not be made until the end of the Congressional session, and therefore differ slightly from the on-budget deficits shown in the Summary and Chapter III.

APPENDIX B

REPORT ON BALANCES PAID FROM EXPIRED ACCOUNTS

Most appropriated funds are available for only a limited period of time, usually one to three years. Once federal agencies commit funds, they must record and pay for their obligations. In the past, agencies would keep track of their obligations for two years after the expiration date--after which no new contracts could be signed. Then, any remaining funds were combined with similar balances from previous years and were available indefinitely to pay for unliquidated obligations made in previous years.

The Defense Authorization Act of 1991 amends this procedure for all federal agencies making these payments. The act also requires the Congressional Budget Office to estimate the effect on the deficit of payments made under the new procedure. Under the changes mandated by the act, the system of merged accounts for paying obligations is eliminated. Instead, appropriation balances remain assigned to a specific year for five years after their availability expires. After this five-year period, the balances will no longer be available; agencies will have to use their currently appropriated funds or request additional appropriations from the Congress to pay any outstanding obligations.

CBO does not project any change in its deficit calculations arising from these new procedures. When discussing outlays of the Department of Defense, Administration officials have expressed a similar belief that these procedural changes would not change their deficit calculations. The deficit calculations would not change because the new law would change only the procedure for paying certain obligations, not to what extent they are paid. Administration officials stressed that the agencies will continue to focus on obligations, leaving outlay patterns the same as in the past. In any case, data do not exist to estimate a new flow of funds, including to what extent agencies will have to use funds from their current appropriations or request additional funds from the Congress to pay off old obligations.

APPENDIX C

THE FEDERAL SECTOR OF THE NATIONAL INCOME AND PRODUCT ACCOUNTS

In analyzing the government's role in the economy, many macroeconomists prefer using the measures of the national income and product accounts (NIPA) rather than the usual budget totals. These accounts, maintained by the Commerce Department, provide the basic information about activity in all sectors of the economy. While similar to those of the budget, the NIPA measures are generally superior when examining the economic impact of federal government activity. Differences between the budget and NIPA totals fall into four categories: the netting and grossing of receipts, the exclusion of lending and financial activities, timing adjustments, and geographic coverage (see Table C-1).

Although netting and grossing adjustments do not affect the total NIPA deficit, they do boost totals of both NIPA receipts and expenditures compared with their budget counterparts. Differences in netting and grossing arise because two types of collections are treated as negative outlays in the budget but are transferred to the receipts side in the NIPA. The first type of collection represents contributions by federal agencies to the Civil Service Retirement Trust Fund, Social Security, and other benefit plans. As an intrabudgetary transaction, these transfers represent both a cost to the employing agencies and a receipt to the retirement fund. The second type of collection consists of voluntary payments by the public (such as Medicare premiums and mineral leases), which are also recorded as negative outlays. Clearly, shifting these collections between expenditures and receipts does not affect the measured deficit, but it more accurately depicts the government's total collections from all sources and its spending for all purposes.

By far, the most important factor causing the budget and NIPA measures of the deficit to diverge is the category of lending and financial exclusions. Exchanges of existing assets and liabilities are gen-

TABLE C-1. RELATIONSHIP OF THE BUDGET TO THE FEDERAL SECTOR OF THE NATIONAL INCOME AND PRODUCT ACCOUNTS (By fiscal year, in billions of dollars)

	Estimate	Base	Projected				
	1990	1991	1992	1993	1994	1995	1996
Receipts							
Revenues (Budget Basis)[a]	1,031	1,094	1,170	1,251	1,332	1,416	1,496
Differences							
Netting and grossing							
Government contributions for employee retirement	44	48	51	54	57	61	64
Medicare premiums	12	12	13	14	16	19	20
Other	8	8	9	8	9	9	10
Geographic exclusions	-2	-2	-2	-3	-3	-3	-3
Other	-1	-6	-2	-2	-5	-5	-3
Total	61	59	68	72	75	81	87
Receipts (NIPA Basis)	1,092	1,153	1,238	1,323	1,407	1,497	1,583
Expenditures							
Outlays (Budget Basis)[a]	1,252	1,391	1,454	1,466	1,492	1,473	1,553
Differences							
Netting and grossing							
Government contributions for employee retirement	44	48	51	54	57	61	64
Medicare premiums	12	12	13	14	16	19	20
Other	8	8	9	8	9	9	10
Lending and financial transactions							
Deposit insurance	-58	-102	-93	-40	-17	53	43
Other	-10	-13	-14	-13	-11	-9	-7
Defense timing adjustment	6	2	2	1	-3	b	4
Geographic exclusions	-7	-7	-8	-8	-9	-9	-10
Other	4	1	1	1	-2	1	1
Total	-2	-53	-41	17	41	125	125
Expenditures (NIPA Basis)	1,249	1,339	1,413	1,483	1,533	1,597	1,678
Deficits							
Deficit (Budget Basis)[a]	220	298	284	215	160	57	56
Differences							
Lending and financial	-70	-115	-107	-53	-28	44	37
Defense timing adjustment	6	2	2	1	-3	b	4
Geographic exclusions	-5	-5	-5	-6	-6	-6	-7
Other	6	7	3	3	2	6	4
Total	-63	-111	-109	-55	-34	44	38
Deficit (NIPA basis)	157	186	175	160	126	101	94

SOURCE: Congressional Budget Office.

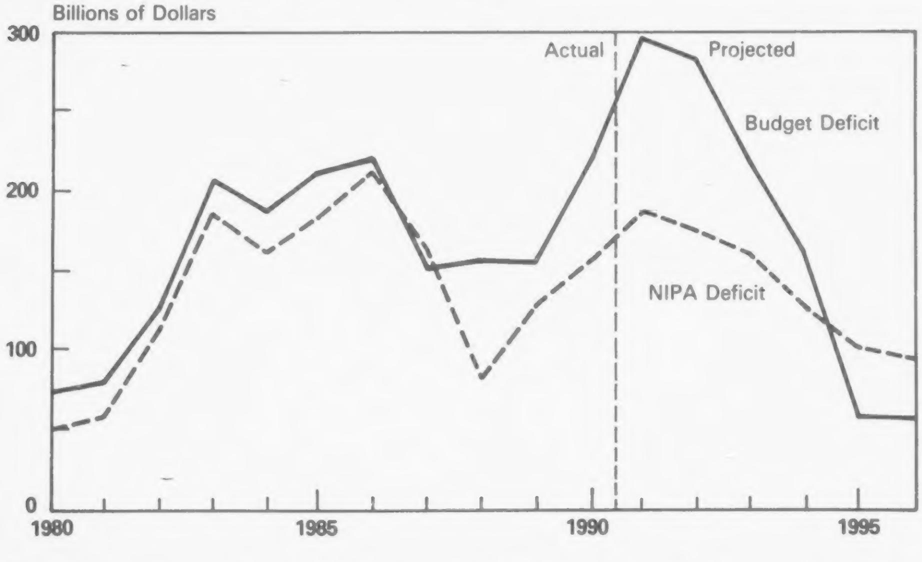
a. Includes Social Security and Postal Service.

b. Less than $500 million.

erally excluded from the NIPA because they do not generate current income or production. Thus, the NIPA spending totals do not include loans extended by the government, loan repayments, and the sale of assets. In the 1991-1996 period, spending by the deposit insurance agencies dominates this category of exclusions. NIPA expenditures essentially exclude all but the premium income, interest, and administrative costs of the deposit insurance agencies.

Remaining differences between the budget and NIPA concepts are much smaller but can take on great importance at particular times. Timing differences occur because the budget records most transactions on a cash basis, while the NIPA often uses an accrual basis. (This approach has generally left NIPA expenditures impervious to shifts of a few days in benefit payments or federal employees' pay.) In the NIPA

Figure C-1.
Deficit as Measured by the National Income and Product Accounts and the Budget



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

projections, timing differences are most important in corporate profits tax accruals and, on the spending side, in defense purchases. Geographic differences in computing gross national product and other national economic data stem from the NIPA's exclusion of Puerto Rico, the Virgin Islands, and other areas.

During the 1980-1986 period, the NIPA and budget deficits generally paralleled each other, with the NIPA deficit remaining about $20 billion below the budget deficit (see Figure C-1 on the preceding page). Variations in the relationship between the two deficit measures are dominated by the large swings in lending and financial exclusions. In 1987, when lending and financial exclusions were at their 10-year low, the NIPA deficit actually exceeded the budget deficit by $13 billion. In 1990, increased spending on deposit insurance resulted in larger lending and financial exclusions, further broadening the gap between the NIPA and budget deficits. CBO projects that this trend will continue in 1991. Between 1992 and 1994, CBO projects a decline in spending on deposit insurance, which draws the NIPA and budget deficits closer together. After 1994, CBO projects large net inflows from sales of assets held by the Resolution Trust Corporation (RTC). This swing in lending and financial exclusions will cause the NIPA deficit to exceed the budget deficit in 1995 and 1996.

The federal sector of the NIPA generally divides receipts according to their source and expenditures according to their purpose and destination. Table C-2 divides receipts and expenditures into their NIPA categories. Defense and nondefense purchases of goods and services enter directly into GNP. The other categories of expenditures--transfer payments, net interest, subsidies less current surpluses of government enterprises, and grants to state and local governments--do not involve the delivery of goods or services to the government; their effect on GNP depends on the recipients' use of the funds and is thus less direct.

During the 1991-1996 period, both the RTC and the Bank Insurance Fund (BIF) will borrow funds from the Federal Financing Bank (FFB). This borrowing will increase NIPA net interest but will leave net interest in the unified budget virtually unchanged. The new bor-

TABLE C-2. PROJECTIONS OF BASELINE RECEIPTS AND EXPENDITURES MEASURED BY THE NATIONAL INCOME AND PRODUCT ACCOUNTS

(By fiscal year, in billions of dollars)

	Estimate	Base	Projected				
	1990	1991	1992	1993	1994	1995	1996
		Receipts					
Personal Tax and Nontax Receipts	484	504	543	585	627	675	721
Corporate Profits Tax Accruals	108	114	121	126	128	129	131
Indirect Business Tax and Nontax Accruals	60	71	77	80	84	87	87
Contributions for Social Insurance	440	465	497	532	569	606	644
Total	1,092	1,153	1,238	1,323	1,407	1,497	1,583
		Expenditures					
Purchases of Goods and Services							
Defense	307	313	313	319	330	344	358
Nondefense	107	121	132	139	145	151	158
Subtotal	415	434	445	458	475	494	516
Transfer Payments	504	535	581	617	656	702	749
Grants-in-Aid to State and Local Governments	128	146	161	172	183	196	209
Net Interest	182	202	219	235	245	246	245
Subsidies Less Current Surplus of Government Enterprises	22	22	21	23	20	21	24
Required Reductions in Discretionary Spending	n.a.	n.a.	-13	-22	-46	-62	-65
Total	1,249	1,339	1,413	1,483	1,533	1,597	1,678
		Deficit					
Deficit	157	186	175	160	126	101	94

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

rowing necessitates higher interest payments on public debt, which increases both NIPA and unified net interest. Net interest in the unified budget also includes interest received by the FFB (though not interest paid by the RTC and BIF), which offsets the increase in interest on the public debt. In the NIPA, however, both interest paid by the deposit insurance fund and interest received by the FFB are excluded as intrabudgetary transactions. Therefore, the new borrowing boosts NIPA net interest, as it should, by roughly the interest generated by the additional public borrowing.

APPENDIX D

HISTORICAL BUDGET DATA

Historical data for revenues, outlays, and the deficit are shown in this appendix. Estimates of the standardized-employment deficit and its revenue and outlay components for fiscal years 1956 through 1990 are reported in Table D-1, along with estimates of nominal potential gross national product and the corresponding nonaccelerating inflation rate of unemployment (NAIRU).

The change in the standardized-employment deficit is a commonly used measure of the short-run impact of discretionary fiscal policy on aggregate demand. The standardized-employment deficit excludes the revenue and outlay effects of cyclical fluctuations in output and unemployment. More specifically, standardized-employment revenues are the federal revenues that would be collected if the economy were operating at its potential level of GNP. These revenues are greater than actual revenues when actual GNP is below its potential level because the actual tax bases are then cyclically depressed. Standardized-employment outlays are the federal outlays that would be recorded if the economy were at an unemployment rate consistent with stable inflation--the NAIRU, which is also the benchmark used to compute potential GNP. These outlays are less than actual outlays when the actual rate of unemployment is higher than the NAIRU because actual transfer payments for Unemployment Insurance and other programs are then cyclically inflated.

Budget data consistent with the budget projections in this report are available for fiscal years 1962 through 1990 and reported in Tables D-2 through D-9. The data are shown both in nominal dollars and as a percentage of gross national product. Federal revenues, outlays, deficit or surplus, and debt held by the public are shown in Tables D-2 and D-3. Revenues, outlays, and the deficit have both on-budget and off-budget components. Social Security receipts and outlays were placed off-budget by the Balanced Budget and Emergency Deficit Control Act of 1985; the Postal Service was moved off-budget beginning in 1989 by the Omnibus Budget Reconciliation Act of 1989. Both Social Security and the Postal Service are excluded from the calculation of the maximum deficit amount under the Budget Enforcement Act of 1990.

The major sources of federal revenues (including off-budget revenues) are presented in Tables D-4 and D-5. Social insurance taxes and contributions include employer and employee payments for Social Security, Medicare, Railroad Retirement, Unemployment Insurance, and pension contributions by federal workers. Excise taxes are levied on certain products and services, such as gasoline, alcoholic beverages, and air travel. The windfall profit tax on domestic oil producers, enacted in 1980 and classified as an excise tax, was repealed in 1988. Miscellaneous receipts consist of deposits of earnings by the Federal Reserve System and numerous fees and charges.

Total on- and off-budget outlays for major spending categories are shown in Tables D-6 and D-7. National defense and net interest are identical to the budget functions with the same titles (functions 050 and 900, respectively). Entitlements and other mandatory spending include programs for which spending is governed by laws making those who meet certain requirements eligible to receive payments. Additional detail on entitlement programs is shown in Tables D-8 and D-9. Nondefense discretionary spending consists of all programs other than defense that are controlled through the appropriation process. Offsetting receipts include the federal government's contribution toward employee retirement, fees and charges such as Medicare premiums, and receipts from the use of federally controlled land and offshore territory.

TABLE D-1. STANDARDIZED-EMPLOYMENT DEFICIT AND RELATED SERIES, FISCAL YEARS 1956-1990

(In billions of dollars)

Fiscal	Standardized - Employment			Potential	
Year	Revenues	Outlays	Deficit (-)	GNP	NAIRU[a]
1956	73.7	71.2	2.4	408.3	5.1
1957	79.9	77.3	2.7	434.6	5.1
1958	83.8	82.0	1.8	459.4	5.0
1959	81.9	91.2	-9.1	484.1	5.1
1960	95.0	92.0	2.9	510.7	5.2
1961	100.3	96.8	3.5	534.9	5.2
1962	103.4	106.1	-2.7	564.6	5.3
1963	110.3	111.1	-0.7	596.6	5.4
1964	113.8	118.5	-4.7	627.8	5.5
1965	116.3	118.9	-2.6	664.9	5.6
1966	124.8	136.2	-11.4	709.1	5.6
1967	142.4	159.7	-17.3	760.3	5.6
1968	145.8	180.6	-34.8	816.2	5.6
1969	178.7	186.9	-8.1	891.9	5.6
1970	191.5	198.5	-7.0	976.4	5.6
1971	190.6	210.5	-19.8	1,060.5	5.7
1972	210.8	230.6	-19.8	1,155.4	5.8
1973	225.2	247.0	-21.8	1,253.1	5.8
1974	260.6	271.7	-11.1	1,398.8	5.9
1975	295.6	328.2	-32.6	1,585.0	6.0
1976	316.7	363.2	-46.5	1,761.0	6.0
1977	368.7	402.9	-34.3	1,975.6	6.0
1978	403.3	456.7	-53.3	2,178.1	5.9
1979	463.4	503.6	-40.2	2,446.9	5.9
1980	535.5	586.3	-50.8	2,736.3	5.9
1981	624.1	669.0	-45.0	3,067.4	6.0
1982	679.7	727.9	-48.2	3,376.1	5.9
1983	678.3	781.5	-103.2	3,604.8	5.8
1984	708.9	836.5	-127.6	3,838.7	5.7
1985	764.2	935.0	-170.8	4,054.4	5.7
1986	793.8	979.6	-185.8	4,268.7	5.6
1987	877.9	996.4	-118.5	4,507.7	5.6
1988	906.7	1,062.5	-155.8	4,771.6	5.5
1989[b]	983.8	1,123.6	-139.8	5,107.6	5.5
1990[b]	1,045.2	1,194.7	-149.4	5,456.8	5.4

SOURCE: Congressional Budget Office.

a. The NAIRU is the nonaccelerating inflation rate of unemployment. It is the benchmark for computing potential GNP.

b. Excludes deposit insurance.

TABLE D-2. REVENUES, OUTLAYS, DEFICITS, AND DEBT HELD BY THE PUBLIC, FISCAL YEARS 1962-1990

(In billions of dollars)

			Deficit (-) or Surplus				Debt
	Revenues	Outlays	On-Budget	Social Security	Postal Service	Total	Held by the Public
1962	99.7	106.8	-5.9	-1.3	0.0	-7.1	248.0
1963	106.6	111.3	-4.0	-0.8	0.0	-4.8	254.0
1964	112.6	118.5	-6.5	0.6	0.0	-5.9	256.8
1965	116.8	118.2	-1.6	0.2	0.0	-1.4	260.8
1966	130.8	134.5	-3.1	-0.6	0.0	-3.7	263.7
1967	148.8	157.5	-12.6	4.0	0.0	-8.6	266.6
1968	153.0	178.1	-27.7	2.6	0.0	-25.2	289.5
1969	186.9	183.6	-0.5	3.7	0.0	3.2	278.1
1970	192.8	195.6	-8.7	5.9	0.0	-2.8	283.2
1971	187.1	210.2	-26.1	3.0	0.0	-23.0	303.0
1972	207.3	230.7	-26.4	3.1	0.0	-23.4	322.4
1973	230.8	245.7	-15.4	0.5	0.0	-14.9	340.9
1974	263.2	269.4	-8.0	1.8	0.0	-6.1	343.7
1975	279.1	332.3	-55.3	2.0	0.0	-53.2	394.7
1976	298.1	371.8	-70.5	-3.2	0.0	-73.7	477.4
1977	355.6	409.2	-49.7	-3.9	0.0	-53.6	549.1
1978	399.6	458.7	-54.9	-4.3	0.0	-59.2	607.1
1979	463.3	503.5	-38.2	-2.0	0.0	-40.2	639.8
1980	517.1	590.9	-72.7	-1.1	0.0	-73.8	709.3
1981	599.3	678.2	-73.9	-5.0	0.0	-78.9	784.8
1982	617.8	745.7	-120.0	-7.9	0.0	-127.9	919.2
1983	600.6	808.3	-208.0	0.2	0.0	-207.8	1,131.0
1984	666.5	851.8	-185.6	0.3	0.0	-185.3	1,300.0
1985	734.1	946.3	-221.6	9.4	0.0	-212.3	1,499.4
1986	769.1	990.3	-237.9	16.7	0.0	-221.2	1,736.2
1987	854.1	1,003.8	-169.3	19.6	0.0	-149.7	1,888.1
1988	909.0	1,064.1	-193.9	38.8	0.0	-155.1	2,050.3
1989	990.7	1,144.1	-206.1	52.4	0.3	-153.4	2,190.7
1990	1,031.5	1,251.9	-277.0	58.2	-1.6	-220.4	2,410.4

SOURCE: Congressional Budget Office.

TABLE D-3. REVENUES, OUTLAYS, DEFICITS, AND DEBT HELD BY THE PUBLIC, FISCAL YEARS 1962-1990
(As a percentage of GNP)

			Deficit (-) or Surplus				
	Revenues	Outlays	On-Budget	Social Security	Postal Service	Total	Debt Held by the Public
1962	17.9	19.2	-1.1	-0.2	0.0	-1.3	44.5
1963	18.1	18.9	-0.7	-0.1	0.0	-0.8	43.2
1964	17.9	18.8	-1.0	0.1	0.0	-0.9	40.8
1965	17.4	17.6	-0.2	a	0.0	-0.2	38.8
1966	17.7	18.2	-0.4	-0.1	0.0	-0.5	35.7
1967	18.7	19.8	-1.6	0.5	0.0	-1.1	33.6
1968	18.0	21.0	-3.3	0.3	0.0	-3.0	34.1
1969	20.1	19.8	-0.1	0.4	0.0	0.3	29.9
1970	19.5	19.8	-0.9	0.6	0.0	-0.3	28.6
1971	17.7	19.9	-2.5	0.3	0.0	-2.2	28.7
1972	18.0	20.0	-2.3	0.3	0.0	-2.0	28.0
1973	18.0	19.2	-1.2	a	0.0	-1.2	26.6
1974	18.6	19.0	-0.6	0.1	0.0	-0.4	24.3
1975	18.3	21.8	-3.6	0.1	0.0	-3.5	25.9
1976	17.6	21.9	-4.2	-0.2	0.0	-4.3	28.1
1977	18.4	21.2	-2.6	-0.2	0.0	-2.8	28.4
1978	18.4	21.1	-2.5	-0.2	0.0	-2.7	28.0
1979	18.9	20.6	-1.6	-0.1	0.0	-1.6	26.1
1980	19.4	22.1	-2.7	a	0.0	-2.8	26.6
1981	20.1	22.7	-2.5	-0.2	0.0	-2.6	26.3
1982	19.7	23.8	-3.8	-0.3	0.0	-4.1	29.3
1983	18.1	24.3	-6.3	a	0.0	-6.3	34.0
1984	18.1	23.1	-5.0	a	0.0	-5.0	35.3
1985	18.6	23.9	-5.6	0.2	0.0	-5.4	37.9
1986	18.4	23.7	-5.7	0.4	0.0	-5.3	41.5
1987	19.3	22.7	-3.8	0.4	0.0	-3.4	42.7
1988	19.0	22.3	-4.1	0.8	0.0	-3.2	42.9
1989	19.3	22.3	-4.0	1.0	a	-3.0	42.7
1990	19.1	23.2	-5.1	1.1	a	-4.1	44.6

SOURCE: Congressional Budget Office.

a. Less than 0.05 percent.

TABLE D-4. REVENUES, BY MAJOR SOURCE, FISCAL YEARS 1962-1990 (In billions of dollars)

Fiscal Year	Individual Income Taxes	Corporate Income Taxes	Social Insurance Taxes	Excise Taxes	Estate and Gift Taxes	Customs Duties	Miscellaneous Receipts	Total Revenues
1962	45.6	20.5	17.0	12.5	2.0	1.1	0.8	99.7
1963	47.6	21.6	19.8	13.2	2.2	1.2	1.0	106.6
1964	48.7	23.5	22.0	13.7	2.4	1.3	1.1	112.6
1965	48.8	25.5	22.2	14.6	2.7	1.4	1.6	116.8
1966	55.4	30.1	25.5	13.1	3.1	1.8	1.9	130.8
1967	61.5	34.0	32.6	13.7	3.0	1.9	2.1	148.8
1968	68.7	28.7	33.9	14.1	3.1	2.0	2.5	153.0
1969	87.2	36.7	39.0	15.2	3.5	2.3	2.9	186.9
1970	90.4	32.8	44.4	15.7	3.6	2.4	3.4	192.8
1971	86.2	26.8	47.3	16.6	3.7	2.6	3.9	187.1
1972	94.7	32.2	52.6	15.5	5.4	3.3	3.6	207.3
1973	103.2	36.2	63.1	16.3	4.9	3.2	3.9	230.8
1974	119.0	38.6	75.1	16.8	5.0	3.3	5.4	263.2
1975	122.4	40.6	84.5	16.6	4.6	3.7	6.7	279.1
1976	131.6	41.4	90.8	17.0	5.2	4.1	8.0	298.1
1977	157.6	54.9	106.5	17.5	7.3	5.2	6.5	355.6
1978	181.0	60.0	121.0	18.4	5.3	6.6	7.4	399.6
1979	217.8	65.7	138.9	18.7	5.4	7.4	9.3	463.3
1980	244.1	64.6	157.8	24.3	6.4	7.2	12.7	517.1
1981	285.9	61.1	182.7	40.8	6.8	8.1	13.8	599.3
1982	297.7	49.2	201.5	36.3	8.0	8.9	16.2	617.8
1983	288.9	37.0	209.0	35.3	6.1	8.7	15.6	600.6
1984	298.4	56.9	239.4	37.4	6.0	11.4	17.0	666.5
1985	334.5	61.3	265.2	36.0	6.4	12.1	18.5	734.1
1986	349.0	63.1	283.9	32.9	7.0	13.3	19.9	769.1
1987	392.6	83.9	303.3	32.5	7.5	15.1	19.3	854.1
1988	401.2	94.5	334.3	35.2	7.6	16.2	19.9	909.0
1989	445.7	103.3	359.4	34.4	8.7	16.3	22.8	990.7
1990	466.9	93.5	380.0	35.3	11.5	16.7	27.5	1,031.5

SOURCE: Congressional Budget Office.

TABLE D-5. REVENUES, BY MAJOR SOURCE, FISCAL YEARS 1962-1990 (As a percentage of GNP)

Fiscal Year	Individual Income Taxes	Corporate Income Taxes	Social Insurance Taxes	Excise Taxes	Estate and Gift Taxes	Customs Duties	Miscellaneous Receipts	Total Revenues
1962	8.2	3.7	3.1	2.2	0.4	0.2	0.2	17.9
1963	8.1	3.7	3.4	2.2	0.4	0.2	0.2	18.1
1964	7.7	3.7	3.5	2.2	0.4	0.2	0.2	17.9
1965	7.3	3.8	3.3	2.2	0.4	0.2	0.2	17.4
1966	7.5	4.1	3.5	1.8	0.4	0.2	0.3	17.7
1967	7.7	4.3	4.1	1.7	0.4	0.2	0.3	18.7
1968	8.1	3.4	4.0	1.7	0.4	0.2	0.3	18.0
1969	9.4	3.9	4.2	1.6	0.4	0.2	0.3	20.1
1970	9.1	3.3	4.5	1.6	0.4	0.2	0.3	19.5
1971	8.2	2.5	4.5	1.6	0.4	0.2	0.4	17.7
1972	8.2	2.8	4.6	1.3	0.5	0.3	0.3	18.0
1973	8.1	2.8	4.9	1.3	0.4	0.2	0.3	18.0
1974	8.4	2.7	5.3	1.2	0.4	0.2	0.4	18.6
1975	8.0	2.7	5.6	1.1	0.3	0.2	0.4	18.3
1976	7.7	2.4	5.3	1.0	0.3	0.2	0.5	17.6
1977	8.2	2.8	5.5	0.9	0.4	0.3	0.3	18.4
1978	8.3	2.8	5.6	0.8	0.2	0.3	0.3	18.4
1979	8.9	2.7	5.7	0.8	0.2	0.3	0.4	18.9
1980	9.1	2.4	5.9	0.9	0.2	0.3	0.5	19.4
1981	9.6	2.0	6.1	1.4	0.2	0.3	0.5	20.1
1982	9.5	1.6	6.4	1.2	0.3	0.3	0.5	19.7
1983	8.7	1.1	6.3	1.1	0.2	0.3	0.5	18.1
1984	8.1	1.5	6.5	1.0	0.2	0.3	0.5	18.1
1985	8.5	1.6	6.7	0.9	0.2	0.3	0.5	18.6
1986	8.3	1.5	6.8	0.8	0.2	0.3	0.5	18.4
1987	8.9	1.9	6.9	0.7	0.2	0.3	0.4	19.3
1988	8.4	2.0	7.0	0.7	0.2	0.3	0.4	19.0
1989	8.7	2.0	7.0	0.7	0.2	0.3	0.4	19.3
1990	8.6	1.7	7.0	0.7	0.2	0.3	0.5	19.1

SOURCE: Congressional Budget Office.

TABLE D-6. OUTLAYS FOR MAJOR SPENDING CATEGORIES, FISCAL YEARS 1962-1990 (In billions of dollars)

Fiscal Year	National Defense	Entitlements and Other Mandatory Spending	Nondefense Discretionary Spending	Net Interest	Offsetting Receipts	Total Outlays
1962	52.3	30.8	23.8	6.9	-7.1	106.8
1963	53.4	33.3	25.0	7.7	-8.1	111.3
1964	54.8	34.5	28.9	8.2	-7.8	118.5
1965	50.6	34.8	32.3	8.6	-8.0	118.2
1966	58.1	37.5	38.1	9.4	-8.5	134.5
1967	71.4	45.3	40.8	10.3	-10.3	157.5
1968	81.9	52.3	43.6	11.1	-10.8	178.1
1969	82.5	58.7	40.8	12.7	-11.1	183.6
1970	81.7	66.1	45.1	14.4	-11.6	195.6
1971	78.9	80.6	50.1	14.8	-14.2	210.2
1972	79.2	94.2	56.0	15.5	-14.2	230.7
1973	76.7	110.4	59.5	17.3	-18.1	245.7
1974	79.3	125.0	64.9	21.4	-21.3	269.4
1975	86.5	158.0	83.0	23.2	-18.5	332.3
1976	89.6	184.3	91.0	26.7	-19.8	371.8
1977	97.2	198.5	105.2	29.9	-21.6	409.2
1978	104.5	220.9	120.9	35.4	-23.0	458.7
1979	116.3	240.8	129.8	42.6	-26.1	503.5
1980	134.0	282.3	152.4	52.5	-30.4	590.9
1981	157.5	326.3	164.9	68.7	-39.3	678.2
1982	185.3	358.8	153.8	85.0	-37.2	745.7
1983	209.9	400.9	153.8	89.8	-46.1	808.3
1984	227.4	397.2	161.5	111.1	-45.3	851.8
1985	252.7	442.6	169.6	129.4	-48.0	946.3
1986	273.4	458.0	170.0	136.0	-47.0	990.3
1987	282.0	474.1	163.4	138.6	-54.2	1,003.8
1988	290.4	504.7	175.2	151.7	-58.0	1,064.1
1989	303.6	546.6	189.4	169.1	-64.6	1,144.1
1990	299.3	620.4	205.6	183.8	-57.2	1,251.9

SOURCE: Congressional Budget Office.

TABLE D-7. OUTLAYS FOR MAJOR SPENDING CATEGORIES, FISCAL YEARS 1962-1990 (As a percentage of GNP)

Fiscal Year	National Defense	Entitlements and Other Mandatory Spending	Nondefense Discretionary Spending	Net Interest	Offsetting Receipts	Total Outlays
1962	9.4	5.5	4.3	1.2	-1.3	19.2
1963	9.1	5.7	4.3	1.3	-1.4	18.9
1964	8.7	5.5	4.6	1.3	-1.2	18.8
1965	7.5	5.2	4.8	1.3	-1.2	17.6
1966	7.9	5.1	5.1	1.3	-1.2	18.2
1967	9.0	5.7	5.1	1.3	-1.3	19.8
1968	9.6	6.2	5.1	1.3	-1.3	21.0
1969	8.9	6.3	4.4	1.4	-1.2	19.8
1970	8.2	6.7	4.6	1.5	-1.2	19.8
1971	7.5	7.6	4.7	1.4	-1.3	19.9
1972	6.9	8.2	4.9	1.3	-1.2	20.0
1973	6.0	8.6	4.6	1.4	-1.4	19.2
1974	5.6	8.8	4.6	1.5	-1.5	19.0
1975	5.7	10.4	5.5	1.5	-1.2	21.8
1976	5.3	10.8	5.4	1.6	-1.2	21.9
1977	5.0	10.3	5.4	1.5	-1.1	21.2
1978	4.8	10.2	5.6	1.6	-1.1	21.1
1979	4.8	9.8	5.3	1.7	-1.1	20.6
1980	5.0	10.6	5.7	2.0	-1.1	22.1
1981	5.3	10.9	5.5	2.3	-1.3	22.7
1982	5.9	11.4	4.9	2.7	-1.2	23.8
1983	6.3	12.1	4.6	2.7	-1.4	24.3
1984	6.2	10.8	4.4	3.0	-1.2	23.1
1985	6.4	11.2	4.3	3.3	-1.2	23.9
1986	6.5	11.0	4.1	3.3	-1.1	23.7
1987	6.4	10.7	3.7	3.1	-1.2	22.7
1988	6.1	10.6	3.7	3.2	-1.2	22.3
1989	5.9	10.7	3.7	3.3	-1.3	22.3
1990	5.5	11.5	3.8	3.4	-1.1	23.2

SOURCE: Congressional Budget Office.

TABLE D-8. OUTLAYS FOR ENTITLEMENTS AND OTHER MANDATORY SPENDING, FISCAL YEARS 1962-1990 (In billions of dollars)

	Medicaid	Other Means-Tested Programs	Social Security	Medicare	Other Retirement and Disability
1962	0.1	4.2	14.1	0.0	2.7
1963	0.2	4.6	15.5	0.0	2.9
1964	0.2	4.8	16.3	0.0	3.3
1965	0.3	5.0	17.1	0.0	3.6
1966	0.8	5.0	20.2	a	4.1
1967	1.2	5.0	21.3	3.2	4.8
1968	1.8	5.7	23.0	5.1	5.7
1969	2.3	6.4	26.5	6.3	5.2
1970	2.7	7.4	29.4	6.8	6.6
1971	3.4	10.0	34.8	7.5	8.3
1972	4.6	11.7	39.0	8.4	9.6
1973	4.6	11.4	47.9	9.0	11.7
1974	5.8	13.7	54.5	10.8	13.8
1975	6.8	18.5	63.1	14.1	16.6
1976	8.6	21.7	72.2	17.0	18.9
1977	9.9	23.5	83.2	20.7	21.6
1978	10.7	24.8	91.8	25.0	23.7
1979	12.4	26.5	101.9	28.9	27.9
1980	14.0	32.0	117.1	33.9	32.1
1981	16.8	37.1	138.0	41.3	37.4
1982	17.4	37.4	154.1	49.2	40.7
1983	19.0	40.3	168.6	55.5	43.2
1984	20.1	41.2	176.1	61.0	44.7
1985	22.7	43.3	186.5	69.8	45.5
1986	25.0	44.9	196.7	74.2	47.5
1987	27.4	45.5	205.2	79.9	50.8
1988	30.5	50.0	217.1	85.7	54.2
1989	34.6	54.2	230.1	94.3	57.2
1990	41.1	58.8	246.5	107.4	59.9

(Continued)

SOURCE: Congressional Budget Office.

TABLE D-8. Continued

	Unemployment Compensation	Deposit Insurance	Farm Price Supports	Other Non-Means-Tested Programs	Total Entitlements and Other Mandatory Spending
1962	3.5	-0.4	2.4	4.1	30.8
1963	3.6	-0.4	3.4	3.6	33.3
1964	3.4	-0.4	3.4	3.6	34.5
1965	2.7	-0.4	2.8	3.8	34.8
1966	2.2	-0.5	1.4	4.3	37.5
1967	2.3	-0.4	2.0	5.8	45.3
1968	2.2	-0.5	3.3	6.1	52.3
1969	2.3	-0.7	4.2	6.3	58.7
1970	3.1	-0.5	3.8	6.9	66.1
1971	5.8	-0.4	2.9	8.3	80.6
1972	6.7	-0.6	4.1	10.7	94.2
1973	4.9	-0.8	3.6	18.1	110.4
1974	5.6	-0.6	1.0	20.5	125.0
1975	12.8	0.5	0.6	24.9	158.0
1976	18.6	-0.6	1.1	26.8	184.3
1977	14.3	-2.8	3.8	24.3	198.5
1978	10.8	-1.0	5.7	29.5	220.9
1979	9.8	-1.7	3.6	31.6	240.8
1980	16.9	-0.4	2.8	34.0	282.3
1981	18.3	-1.4	4.0	34.9	326.3
1982	22.2	-2.2	11.7	28.3	358.8
1983	29.7	-1.2	18.9	27.0	400.9
1984	16.8	-0.9	7.3	30.8	397.2
1985	15.8	-2.2	17.7	43.5	442.6
1986	16.1	1.5	25.8	26.2	458.0
1987	15.5	3.1	22.4	24.2	474.1
1988	13.6	10.0	12.2	31.5	504.7
1989	13.9	22.0	10.6	29.6	546.6
1990	17.5	58.1	6.5	24.6	620.4

a. Less than $50 million.

TABLE D-9. OUTLAYS FOR ENTITLEMENTS AND OTHER MANDATORY SPENDING, FISCAL YEARS 1962-1990 (As a percentage of GNP)

	Medicaid	Other Means-Tested Programs	Social Security	Medicare	Other Retirement and Disability
1962	a	0.8	2.5	0.0	0.5
1963	a	0.8	2.6	0.0	0.5
1964	a	0.8	2.6	0.0	0.5
1965	a	0.7	2.5	0.0	0.5
1966	0.1	0.7	2.7	a	0.6
1967	0.1	0.6	2.7	0.4	0.6
1968	0.2	0.7	2.7	0.6	0.7
1969	0.2	0.7	2.9	0.7	0.6
1970	0.3	0.7	3.0	0.7	0.7
1971	0.3	0.9	3.3	0.7	0.8
1972	0.4	1.0	3.4	0.7	0.8
1973	0.4	0.9	3.7	0.7	0.9
1974	0.4	1.0	3.8	0.8	1.0
1975	0.4	1.2	4.1	0.9	1.1
1976	0.5	1.3	4.3	1.0	1.1
1977	0.5	1.2	4.3	1.1	1.1
1978	0.5	1.1	4.2	1.1	1.1
1979	0.5	1.1	4.2	1.2	1.1
1980	0.5	1.2	4.4	1.3	1.2
1981	0.6	1.2	4.6	1.4	1.3
1982	0.6	1.2	4.9	1.6	1.3
1983	0.6	1.2	5.1	1.7	1.3
1984	0.5	1.1	4.8	1.7	1.2
1985	0.6	1.1	4.7	1.8	1.2
1986	0.6	1.1	4.7	1.8	1.1
1987	0.6	1.0	4.6	1.8	1.1
1988	0.6	1.0	4.5	1.8	1.1
1989	0.7	1.1	4.5	1.8	1.1
1990	0.8	1.1	4.6	2.0	1.1

(Continued)

SOURCE: Congressional Budget Office.

TABLE D-9. Continued

	Unemployment Compensation	Deposit Insurance	Farm Price Supports	Other Non-Means-Tested Programs	Total Entitlements and Other Mandatory Spending
1962	0.6	-0.1	0.4	0.7	5.5
1963	0.6	-0.1	0.6	0.6	5.7
1964	0.5	-0.1	0.5	0.6	5.5
1965	0.4	-0.1	0.4	0.6	5.2
1966	0.3	-0.1	0.2	0.6	5.1
1967	0.3	-0.1	0.2	0.7	5.7
1968	0.3	-0.1	0.4	0.7	6.2
1969	0.2	-0.1	0.5	0.7	6.3
1970	0.3	-0.1	0.4	0.7	6.7
1971	0.5	a	0.3	0.8	7.6
1972	0.6	-0.1	0.4	0.9	8.2
1973	0.4	-0.1	0.3	1.4	8.6
1974	0.4	a	0.1	1.4	8.8
1975	0.8	a	a	1.6	10.4
1976	1.1	a	0.1	1.6	10.8
1977	0.7	-0.1	0.2	1.3	10.3
1978	0.5	a	0.3	1.4	10.2
1979	0.4	-0.1	0.1	1.3	9.8
1980	0.6	a	0.1	1.3	10.6
1981	0.6	a	0.1	1.2	10.9
1982	0.7	-0.1	0.4	0.9	11.4
1983	0.9	a	0.6	0.8	12.1
1984	0.5	a	0.2	0.8	10.8
1985	0.4	-0.1	0.4	1.1	11.2
1986	0.4	a	0.6	0.6	11.0
1987	0.3	0.1	0.5	0.5	10.7
1988	0.3	0.2	0.3	0.7	10.6
1989	0.3	0.4	0.2	0.6	10.7
1990	0.3	1.1	0.1	0.5	11.5

a. Less than 0.05 percent.

APPENDIX E

MAJOR CONTRIBUTORS TO THE REVENUE AND SPENDING PROJECTIONS

The following analysts prepared the revenue and spending projections in this report:

Revenue Projections

Mark Booth	Corporate income taxes, Federal Reserve System earnings
Maureen Griffin	Social insurance contributions, excise taxes, estate and gift taxes
Katherine Johnson	Excise taxes, NIPA receipts
Richard Kasten	Individual income taxes
Linda Radey	Individual income taxes, excise taxes
Frank Sammartino	Individual income taxes
John Stell	Customs duties, miscellaneous receipts

Spending Projections

Defense and International Affairs

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Kent Christensen	International affairs
Raymond Hall	Defense
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Lisa Siegel	Defense
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Spending Projections (continued)

Human Resources

Diane Celuch	Social service programs, Head Start
Sandra Clark	Child nutrition, veterans' compensation and pensions
Paul Cullinan	Social Security
Cathy Ellman	Civil Service Retirement, Railroad Retirement
Alan Fairbank	Hospital Insurance
Karen Graham	Public Health Service
Scott Harrison	Medicare
Holly Harvey	Supplementary Medical Insurance
Jean Hearne	Medicaid
Lori Housman	Medicare
Julia Isaacs	Food stamps, foster care, child care
Deborah Kalcevic	Education
Cory Oltman	Unemployment insurance, training programs, veterans' education
Janice Peskin	Aid to Families with Dependent Children, child support enforcement
Pat Purcell	Supplemental Security Income, Medicaid
Kathleen Shepherd	Veterans' benefits

Natural and Physical Resources

Philip Bartholomew	Deposit insurance
Laura Carter	Commerce, deposit insurance
Kim Cawley	Energy, pollution control and abatement
Peter Fontaine	Energy
Theresa Gullo	Water resources, conservation, and land management
James Hearn	General government, Agricultural Credit Insurance Fund, Outer Continental Shelf receipts

Spending Projections (continued)

Natural and Physical Resources

David Hull	Agriculture
Thomas Lutton	Deposit insurance
Mary Maginniss	Deposit insurance
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Marjorie Miller	Transportation, Federal Housing Administration
Marta Morgan	Community and regional development, general government
Andrew Morton	Agriculture
Deborah Reis	Recreation, water transportation
Mitchell Rosenfeld	Air transportation, justice, Postal Service
Brent Shipp	Housing and mortgage credit
Michael Sieverts	Science and space, justice, natural resources

Other

Janet Airis	Appropriation bills
Edward Blau	Appropriation bills
David Elkes	National income and product accounts, other interest
Betty Embrey	Appropriation bills
Kenneth Farris	Computer support
Danila Girerd	Credit budget
Glen Goodnow	Authorization bills
Alice Grant	Appropriation bills
Vernon Hammett	Computer support
Sandra Hoffman	Computer support
Richard Krop	Civilian agency pay, historical data
Fritz Maier	Computer support
Rodney Rasmussen	Net interest on the public debt
Kathy Ruffing	Treasury borrowing, interest, and debt

Spending Projections (continued)

Other

Robert Sempsey	Appropriation bills
Jeff Swersey	Computer support
Rick Williams	Computer support

GLOSSARY

The Budget Enforcement Act of 1990 recently redefined a number of budget terms. The definitions of terms in this glossary conform to the changes required by the act and reflect their usage in this report. Although such usage is standard, the definitions may not apply in other contexts. Some entries sacrifice precision for brevity and clarity to the lay reader. Where appropriate, data sources for entries are indicated as follows:

> BEA denotes Bureau of Economic Analysis, Department of Commerce;
>
> BLS denotes Bureau of Labor Statistics, Department of Labor;
>
> CBO denotes Congressional Budget Office;
>
> FRB denotes Federal Reserve Board; and
>
> NBER denotes National Bureau of Economic Research.

Aggregate demand: Total purchases of a country's output of goods and services by consumers, businesses, government, and foreigners during a given period. Because purchases equal sales, aggregate demand equals gross national product. (BEA)

Appreciation: Gain in the exchange value of a currency. See also **Exchange rate**.

Appropriations: The legal authority for federal agencies to incur obligations and make payments from the Treasury for specified purposes.

Discretionary appropriations are usually made on an annual basis but are sometimes made on a multiyear or open-ended basis. In acting annually on these appropriations, the Congress exercises complete discretion regarding the amounts appropriated.

Mandatory appropriations are also provided by the Congress on an annual basis. The amount of the appropriations, however, is determined largely by existing, substantive law. For the purposes of the Budget Enforcement Act of 1990, any reference to entitlement authority includes mandatory appropriations. See **Entitlements**.

Permanent appropriations are available as a result of previously enacted legislation and do not require subsequent action by the Congress to authorize their use.

Authorization: A substantive law that sets up or continues a federal program or agency. Authorizing legislation is normally a prerequisite for appropriations. For some programs, the authorizing legislation itself provides the authority to incur obligations and make payments.

Balanced Budget Act: Common shorthand for the Balanced Budget and Emergency Deficit Control Act of 1985, also known as Gramm-Rudman-Hollings. The act sets forth specific deficit targets and a sequestration procedure to reduce spending if the targets are exceeded by budget projections. The Budget Enforcement Act of 1990 established a revised set of targets through fiscal year 1995, which excludes the Social Security trust funds. The President is required to adjust the deficit targets for revised economic and technical assumptions when submitting the budgets for fiscal years 1992 and 1993 and has that option for the budgets of fiscal years 1994 and 1995.

Baseline: The benchmark for measuring the budgetary effects of proposed changes in federal revenues or spending with the assumption that current budgetary policies are continued without change. The Budget Enforcement Act of 1990 requires both CBO and the Office of Management and Budget to report on budget baseline levels for the next five years. The methodology for CBO's baseline budget projections follows the specifications required by the act. For revenues and entitlement spending, the baseline generally assumes that laws now on the statute books will continue. For discretionary spending, the projections for fiscal year 1992 are based on the appropriations for fiscal year 1991, adjusted for inflation.

Basis point: One-hundredth of 1 percent--for example, interest rates of 6.4 percent and 6.2 percent differ by 20 basis points.

Budget: A detailed statement of actual or anticipated revenues and expenditures during an accounting period.

Budget authority: Authority provided by law to incur financial obligations that will result in spending of federal government funds. Offsetting collections, including offsetting receipts, constitute negative budget authority.

Budget deficit: Amount by which budget expenditures exceed budget revenues during a given period.

Budget Enforcement Act of 1990: Title XIII of the Omnibus Budget Reconciliation Act of 1990. This act amended both the Congressional Budget Act of 1974 and the Balanced Budget and Emergency Deficit Control Act of 1985. The new law provides for new budget targets, sequestration procedures, pay-as-you-go procedures, credit reform, and various other changes.

Budget function: One of 19 areas into which federal spending and credit activity are divided. National needs are grouped into 17 broad budget functions, including national defense, international affairs, energy, agriculture, health, income security, and general government. Two functions--net interest and undistributed offsetting receipts--do not address national needs but are included to complete the budget.

Budget resolution: A resolution, passed by both Houses of the Congress but not requiring the President's signature, that sets forth a Congressional budget plan for the next five years. The plan must be carried out through subsequent legislation, including appropriations and changes in tax and entitlement laws. The Congressional Budget Act of 1974 established a number of mechanisms that are designed to hold spending and revenues to the targets established in the budget resolution.

Budgetary resources: All sources of budget authority that are subject to sequestration. For fiscal year 1991, budgetary resources include new budget authority; unobligated balances; new loan guarantee commitments or limitations; new direct loan obligations, commitments, or limitations; direct spending authority; and obligation limitations. From fiscal year 1992 through fiscal year 1995, budgetary resources are the same except that they exclude new loan guarantee commitments or limitations and new direct loan obligations, commitments, or limitations as a result of credit reform.

Business cycle: Fluctuations in overall business activity accompanied by swings in the unemployment rate, interest rates, and profits. Over a business cycle, real activity rises to a peak value (its highest level during the cycle), then falls until it reaches its trough value (its lowest level following the peak), whereupon it starts to rise again, defining a new cycle. Business cycles are irregular, varying in frequency, amplitude, and duration. (NBER)

Capital: *Physical capital* is the output that has been set aside to be used in production rather than consumed. According to the national income and product accounts, private capital goods are composed of residential and nonresidential structures, producers' durable equipment, and business inventories. *Financial capital* is a claim on an individual, business, or government represented by a security, such as a mortgage, stock certificate, or bond. Issuing such securities provides the resources to buy physical capital.

Capitalization requirements: The amount of funds that the owners of banks, savings and loan institutions, and mutual savings banks are required by law to maintain in their institutions as capital. Owners risk losing such funds if the institution's assets cannot cover its liabilities, but higher capitalization requirements reduce the risk of bankruptcy.

Cash flow: Profits plus depreciation of physical capital. (BEA)

Central bank: A government-established agency responsible for conducting monetary policy and overseeing credit conditions. The Federal Reserve System fulfills these functions in the United States.

Civilian unemployment rate: Unemployment as a percentage of the civilian labor force--that is, the labor force excluding armed forces personnel. (BLS)

Compensation: All income due to employees for their work during a given period. Compensation includes wages and salaries as well as fringe benefits and employers' share of social insurance taxes. (BEA)

Constant dollars: Measured in terms of prices of a base period, currently 1982 for most purposes, to remove the influence of inflation. Compare with **Current dollar**.

Consumer confidence: A measure of consumer attitudes and buying plans indicated by an index of consumer sentiment. The index is constructed by the University of Michigan Survey Research Center based on surveys of consumers regarding their view of the states of the economy and of their personal finances, both current and prospective.

Consumer durable goods: Goods bought by households for their personal use that, on average, last more than three years--for example, automobiles, furniture, or appliances.

Consumer price index: See **CPI-U**.

Consumption: Total purchases of goods and services during a given period by households for their own use. (BEA)

CPI-U: An index of consumer prices based on the typical market basket of goods and services consumed by all urban consumers during a base period. (BLS)

Credit budget: A budget supplementary to the unified budget for measuring gross federal and federally assisted credit activities and for controlling the gross volume of those activities. In large measure, procedures established in the Federal Credit Reform Act of 1990 have superseded the credit budget.

Credit crunch: A significant, temporary decline in the normal supply of credit, usually caused by tight monetary policy or a regulatory restriction facing lending institutions.

Credit reform: A revised system of budgeting for federal credit activities that focuses on the cost of subsidies conveyed in federal credit assistance. This new process was authorized by the Federal Credit Reform Act of 1990 and is to take effect in 1992.

Credit subsidies: The estimated long-term costs to the federal government of direct loans or loan guarantees calculated on the basis of net present value, excluding administrative costs and any incidental effects on governmental receipts or outlays. For direct loans, the subsidy cost is the net present value of loan disbursements, less repayments, and adjusted for interest, estimated defaults, prepayments, fees, penalties, and other recoveries. For loan guarantees, the subsidy cost is the net present value of the estimated payments by the government to cover defaults and delinquencies, interest subsidies, or other payments, offset by any payments to the government, including origination and other fees, penalties, and recoveries.

Currency value: See **Exchange rate**.

Current dollar: Measured in the dollar value of the period; nominal. Compare with **Constant dollar**.

Cyclical deficit: The part of the budget deficit that results from cyclical factors rather than from underlying fiscal policy. The cyclical deficit reflects the fact that, when GNP falls, revenues automatically fall and outlays automatically rise. The cyclical deficit is zero when the economy is operating at potential GNP. Compare with **Standardized-employment budget deficit**. (CBO)

Defense spending: See **Discretionary spending**.

Deflator: See **Implicit deflator**.

Deposit insurance: The guarantee by a federal agency that an individual depositor at a participating depository institution will receive the full amount of the deposit (up to $100,000) if the institution becomes insolvent.

Depository institutions: Financial intermediaries that make loans to borrowers and obtain funds from savers by accepting deposits; banks, savings and loan institutions, mutual savings banks, and credit unions

Depreciation: Decline in the value of a currency or a capital good. When applied to a capital good, the term usually refers to loss of value because of obsolescence or wear.

Direct spending: The Budget Enforcement Act of 1990 defines this term as (a) budget authority provided by law other than appropriation acts, (b) entitlement authority (including mandatory appropriations), and (c) the Food Stamp program. Compare with **Discretionary spending**.

Discount rate: The interest rate charged by the Federal Reserve System on a loan that it makes to a bank. Such loans, when allowed, enable a bank to meet its reserve requirements without reducing its loans.

Discretionary spending: Spending for programs provided by the Congress in the 13 annual appropriation bills. Discretionary spending is divided among three categories: defense, international, and domestic.

Defense discretionary spending consists primarily of the military activities of the Department of Defense, which are funded in the defense and military construction appropriation bills. It also includes the defense-related functions of other agencies, such as the Department of Energy's nuclear weapons programs.

International discretionary spending encompasses spending for foreign economic and military aid, the activities of the Department of State and the U.S. Information Agency, and international financial programs, such as the Export-Import Bank of the United States.

Domestic discretionary spending includes most government activities in science and space, transportation, medical research, environmental protection, and law enforcement, among other spending programs. Funding for these programs is provided in 10 of the annual appropriation bills.

Discretionary spending caps: Ceilings on budget authority and outlays for discretionary programs as defined by the Budget Enforcement Act of 1990. For fiscal years 1991 through 1993, the caps are divided among the three categories of discretionary spending--defense, international, and domestic. For fiscal years 1994 and 1995, there is one cap for all discretionary spending. Discretionary spending caps are enforced through Congressional rules and sequestration procedures.

Disposable (personal) income: Income received by individuals, including transfer payments, less personal taxes and fees paid to government. (BEA)

Dollar exchange rate: The number of units of a foreign currency that can be bought with one dollar. (FRB)

Domestic demand: Total purchases of goods and services, regardless of origin, by U.S. consumers, businesses, and governments during a given period. Domestic demand equals gross national product plus imports minus exports. (BEA)

Domestic discretionary spending: See **Discretionary spending**.

Entitlements: Programs that make payments to any person, business, or unit of government that seeks the payments and meets the criteria set in law. The Congress controls these programs indirectly by defining eligibility and setting the benefit or payment rules, rather than directly through the annual appropriation process. The best-known entitlements are the major benefit programs, such as Social Security and Medicare; other entitlements include farm price supports and interest on the federal debt. Under the provisions of the Budget Enforcement Act of 1990, mandatory programs funded through the annual appropriation process are treated for budgetary purposes like entitlements.

Equity price: The market value of a stock certificate share.

Exchange rate: The number of units of a foreign currency that can be bought with one unit of the domestic currency. (FRB)

Excise tax: A tax levied on the purchase of a specific type of good or service, such as tobacco products or telephone services.

Expansion: A phase of the business cycle that extends from the trough to the next peak. (NBER)

Factory operating rate: The seasonally adjusted output of the nation's factories expressed as a percentage of their capacity to produce. Capacity is defined as the greatest rate of output a plant can maintain with a realistic work schedule. (FRB)

Federal funds rate: Overnight interest rate at which financial institutions borrow and lend monetary reserves. A rise in the federal funds rate (compared with other short-term rates) suggests a tightening of monetary policy, whereas a fall suggests an easing. (FRB)

Federal Reserve System: The agency responsible for conducting monetary policy and overseeing credit conditions in the United States.

Financing account: Any account established under credit reform to finance the portion of federal direct loans and loan guarantees not subsidized by federal funds. Since these accounts are used only to finance the nonsubsidized portion of federal credit activities, they are excluded from the federal budget and included as a means of financing the budget.

Fiscal policy: The government's choice of tax and spending programs, which influences the level, composition, and distribution of output and income. An easy fiscal policy stimulates the growth of output and income, while a tight fiscal policy restrains their growth. Movements in the standardized-employment budget deficit constitute one overall indicator of the tightness or ease of federal fiscal policy--an increase relative to potential GNP suggests fiscal ease, whereas a decrease suggests fiscal restriction. The President and the Congress jointly carry out federal fiscal policy.

Fiscal year: A yearly accounting period. The federal government's fiscal year begins October 1 and ends September 30. Fiscal years are designated by the calendar years in which they end--for example, fiscal year 1990 began October 1, 1989, and ended September 30, 1990.

Fixed-weighted price index:. An index that measures overall price (compared with a base period) without being influenced by changes in the composition of output or purchases. Compare with **Implicit deflator.**

GDP: See **Gross domestic product**.

GNP: See **Gross national product**.

Government purchases of goods and services: Purchases from the private sector (including compensation of government employees) made by government during a given period. Unlike government expenditures, purchases exclude transfer payments (which include grants and interest paid). (BEA)

Government-sponsored enterprises (GSEs): Enterprises established and chartered by the federal government to perform specific financial functions, usually under the supervision of a government agency. Major examples are the Federal National Mortgage Association, the Student Loan Marketing Association, and the Federal Home Loan Banks.

Gross domestic product (GDP): The total current market value of all goods and services produced domestically during a given period. GDP differs from GNP by excluding net income (primarily capital income) that residents earn abroad. (BEA)

Gross national product (GNP): The total current market value of all goods and services produced in a given period by residents of a country and the assets they own. See also **Potential GNP**. (BEA)

Implicit deflator: An overall measure of price (compared with a base period) given by the ratio of current dollar purchases to constant dollar purchases. Changes in an implicit deflator, unlike those in a **fixed-weighted price index**, reflect changes in the composition of purchases as well as in the prices of goods and services purchased. (BEA)

Index: An indicator or summary measure that defines the overall level (compared with a base) of some aggregate, such as the general price level or total quantity, in terms of the levels of its components.

Inflation: Growth in a measure of the general price level, usually expressed as an annual rate of change.

Inflation-adjusted budget deficit: A measure of the change in the real value of the publicly held federal debt expressed in the dollar value of the period.

Inventories: Stocks of goods held by businesses either for further processing or for sale. (BEA)

Investment: *Physical investment* is the current product set aside during a given period to be used for future production; in other words, an addition to the stock of capital goods. According to the national income and product accounts, private domestic investment consists of investment in residential and nonresidential structures, producers' durable equipment, and the change in business inventories. *Financial investment* is the purchase of a financial security.

Labor force: The number of people who have jobs or are available for work and are actively seeking jobs. *Labor force participation rate* is the labor force as a percentage of the noninstitutional population aged 16 years or older. (BLS)

Labor productivity: Average real output per hour of labor. The growth of labor productivity is defined as growth of real output that is not explained by growth of labor input alone. Labor productivity differs from total factor productivity in that increases in capital per worker raise labor productivity, but not total factor productivity. Compare with **Total factor productivity**. (BLS)

Liquidating account: Any budgetary account established under credit reform to finance direct loan and loan guarantee activities that were obligated or committed before credit reform.

Long-term interest rate: Interest rate earned by a note or bond that matures in 10 or more years.

M1: A relatively narrow measure of the U.S. money supply. It primarily consists of the public's (excluding banks') total holdings of currency, traveler's checks, and checking accounts. (FRB)

M2: A broader measure of the U.S. money supply than M1. It primarily consists of M1, plus the public's holdings of savings and small (less than $100,000) time deposits and money-market deposit accounts held at depository institutions, as well as accounts at money-market mutual funds. (FRB)

Means of financing: Sources of financing federal deficits or uses of federal surpluses. The largest means of financing is normally federal borrowing from the public, but other means of financing include any transaction that causes a difference between the federal (including off-budget) surplus or deficit and changes in debt held by the public. The means of financing include changes in checks outstanding and Treasury cash balances, seigniorage, and the financing accounts enacted under credit reform.

Means-tested programs: Programs that provide cash or services to low-income people who meet a test of need. Most means-tested programs are entitlements--for example, Medicaid, the Food Stamp program, Supplemental Security Income, family support, and veterans' pensions--but a few, such as subsidized housing and various social services, are funded through discretionary appropriations.

Monetary policy: The strategy of influencing movements of the money supply and interest rates to affect output and inflation. An easy monetary policy suggests faster money growth and initially lower short-term interest rates in an attempt to increase aggregate demand, but it may lead to a higher rate of inflation. A tight monetary policy suggests slower money growth and higher interest rates in the near term in an attempt to reduce inflationary pressure by reducing aggregate demand. The Federal Reserve System conducts monetary policy in the United States.

Monetary reserves: The amount of funds that banks and other depository institutions hold as cash or as deposits with the Federal Reserve System. See also **Reserve requirements**.

Money supply: Private assets that can readily be used to make transactions or can easily be converted into those that can. See **M1** and **M2**.

NAIRU (Nonaccelerating inflation rate of unemployment): The unemployment rate consistent with a constant inflation rate. An unemployment rate greater than NAIRU indicates downward pressure on inflation, while a lower unemployment rate indicates upward pressure on inflation. Estimates of NAIRU are based on the historical relationship between inflation and the aggregate unemployment rate. CBO's estimating procedures are described in Appendix B of *The Economic and Budget Outlook: An Update* (August 1987).

National income and product accounts (NIPA): Official U.S. accounts that detail the composition of GNP and how the costs of production are distributed as income. (BEA)

National saving: Total saving by all sectors of the economy: personal saving, business saving (corporate after-tax profits not paid as dividends), and government saving (budget surplus or deficit--indicating dissaving--of all government entities). National saving represents all income not consumed, publicly or privately, during a given period. (BEA)

Net exports: A country's exports less its imports. (BEA)

Net interest: *In the federal budget,* net interest includes federal interest payments to the public as recorded in budget function 900. Net interest also includes, as an offset, interest income received by the government on loans and cash balances. *In the national income and product accounts,* net interest is the income component of GNP paid as interest; primarily interest that domestic businesses pay, less interest they receive. The NIPA treat government interest payments as transfers and net them from GNP.

Net national saving: National saving less depreciation of physical capital.

Net present value: The current value of future payments and collections. The difference between cash at any point in time and future cash transactions adjusted for the time value of money.

NIPA: See **National income and product accounts**.

Nominal: Measured in the dollar value (as in nominal output, income, or wage rate) or market terms (as in nominal exchange or interest rate) of a certain time period. Compare with **Real**.

Noncredit account: Any budgetary account except for credit activity, including the subsidy, program, and liquidating accounts established under credit reform.

Nonfarm business productivity: Labor productivity in the nonfarm business sector. (BLS)

Nonresidential structures: Primarily business buildings--such as industrial, office, and other commercial buildings--and structures, such as mining shafts and well shafts. (BEA)

OBRA: The Omnibus Budget Reconciliation Act of 1990.

Off-budget: Spending or revenues excluded from the budget totals by law. The Budget Enforcement Act of 1990 requires that the revenues and outlays of the two Social Security trust funds be shown as off-budget. The Omnibus Budget Reconciliation Act of 1989 took the Postal Service fund off-budget and also excluded it from the Balanced Budget Act and the Congressional budget resolution processes.

Offsetting receipts: Funds collected by the federal government that are recorded as negative budget authority and outlays and credited to separate receipt accounts. More than half of offsetting receipts are intragovernmental receipts that reflect agencies' payments to retirement and other funds on their employees' behalf; these receipts simply balance payments elsewhere in the budget. The remaining offsetting receipts (proprietary receipts) come from the public and generally represent voluntary, business-type transactions. The largest items are the flat premiums for Supplementary Medical Insurance (Part B of Medicare), timber and oil lease receipts, and proceeds from the sale of electric power.

Operating deficit of state and local governments: Budget deficit excluding revenues and expenditures of their social insurance funds (primarily retirement funds for employees). (BEA)

Organization of Petroleum Exporting Countries (OPEC): The group of oil-rich countries that tries to determine the price of crude oil (given demand) by agreeing to production quotas among its members.

Outlays: The liquidation of a federal obligation, generally by issuing a check or disbursing cash. Sometimes obligations are liquidated (and outlays occur) by issuing agency notes, such as those of the Federal Deposit Insurance Corporation. Unlike outlays for other categories of spending, outlays for interest on the public debt are counted when the interest is earned, not when it is paid. Outlays may be for payment of obligations incurred in previous fiscal years or in the same year. Outlays, therefore, flow in part from unexpended balances of prior-year budget authority and, in part, from budget authority provided for the current year.

Pay-as-you-go: A procedure required in the Budget Enforcement Act of 1990 to ensure that, for fiscal years 1991 through 1995, direct spending and receipt legislation do not increase the deficit. Pay-as-you-go is enforced through Congressional rules and sequestration procedures.

Payroll employment: An estimate of employment based on a monthly survey of payroll records of nonfarm business and government establishments. (BLS)

Peak: See **Business cycle**.

Personal saving: Disposable personal income that households do not use for consumption or interest payments during a given period. *Personal saving rate* is personal saving as a percentage of disposable personal income. (BEA)

Point-year of unemployment: An unemployment rate that is one percentage point above the NAIRU and lasts for one year. For example, if the unemployment rate averaged two percentage points above NAIRU for one year, that would be two point-years of unemployment.

Potential GNP: Level of GNP estimated to be consistent with a constant rate of inflation. (CBO)

Private saving: Saving by households and businesses; private saving is equal to personal saving plus after-tax corporate profits less dividends paid. (BEA)

Producers' durable equipment: Primarily nonresidential capital equipment--such as computers, machines, and transportation equipment--owned by businesses. (BEA)

Program account: Any budgetary account that finances credit subsidies and the costs of administering credit programs.

Publicly held federal debt: Debt issued by the federal government and held by nonfederal investors (including the Federal Reserve System).

Real: Adjusted to remove the effect of inflation. *Real (constant dollar) output* represents volume, rather than dollar value, of goods and services. *Real income* represents power to purchase real output. *Real data* are constructed by dividing the corresponding nominal data by a price index or deflator. *Real interest rate* is a nominal interest rate minus the inflation rate of a given price index. Compare with **Nominal**.

Receipt account: Any budget or off-budget account that is established exclusively to record the collection of income, including negative subsidies. In general, receipt accounts used to collect money arising from the exercise of the government's sovereign powers are included as budget or off-budget revenues, whereas the proceeds of intragovernmental transactions or collections from the public arising from business-type transactions (such as interest income, proceeds from the sale of property or products, or profits from federal credit activities) are included as *offsetting receipts*--that is, credited as offsets to outlays rather than included in receipts.

Recession: A phase of the business cycle that extends from a peak to the next trough. Real GNP usually falls throughout the recession. (NBER)

Reconciliation: A process the Congress uses to make its tax and spending legislation conform with the targets established in the budget resolution. The budget resolution may contain reconciliation instructions directing certain Congressional committees to achieve savings in tax or spending programs under their jurisdiction. Legislation to implement the reconciliation instructions is usually combined in one comprehensive bill. The reconciliation process primarily affects taxes, entitlement spending, and offsetting receipts. As a general rule, decisions on defense and nondefense discretionary programs are determined separately through the appropriation process, which is also governed by allocations in the budget resolution.

Reconciliation act: See **OBRA**.

Reserve requirements: The amount of funds that banks and other depository institutions must hold as cash or as deposits with the Federal Reserve System. The Federal Reserve System specifies reserve requirements depending on the level of deposits. Such requirements reduce the risk of bank failure and allow the Federal Reserve System to influence the money supply. (FRB)

Residential investment: Investment in housing, primarily for construction of new single-family and multifamily housing and alterations and additions to existing housing. (BEA)

Resolution Trust Corporation (RTC): An agency created by the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) to close, merge, or otherwise resolve insolvent savings and loan institutions whose deposits are insured by the federal government.

RTC: See **Resolution Trust Corporation**.

Sequestration: The cancellation of budgetary resources to enforce the Budget Enforcement Act of 1990. Sequestration is triggered if the Office of Management and Budget determines that discretionary appropriations breach the discretionary spending caps, that direct spending and receipt legislation increase the deficit, or that the deficit exceeds, by more than a specified margin, the maximum deficit amount set by law. Failure to meet the maximum deficit amount would trigger across-the-board spending reductions. Changes in direct spending and receipt legislation that increase the deficit would result in reductions in funding from entitlements not otherwise exempted by law. Discretionary spending in excess of the caps would cause the cancellation of budgetary resources within the appropriate discretionary spending category.

Short-term interest rate: Interest rate earned by a debt instrument that will mature within one year.

Standardized-employment budget deficit: The level of the federal government budget deficit if the economy is operating at potential GNP. It provides a measure of underlying fiscal policy by removing the influence of cyclical factors from the budget deficit. Compare with **Cyclical deficit**. (CBO)

Structural budget deficit: Same as **Standardized-employment budget deficit**.

Ten-year Treasury note: Interest-bearing note issued by the U.S. Treasury that is redeemed in 10 years.

Three-month Treasury bill: Security issued by the U.S. Treasury that is redeemed in 91 days.

Thrift institutions: Savings and loan institutions and mutual savings banks.

Total factor productivity: Average real output per unit of combined labor and capital inputs. The growth of total factor productivity is defined as growth in real output that is not explained by growth of combined labor and capital inputs. While technical advance and education are likely major contributors to total factor productivity, it has exhibited many variations in the past that have not been fully explained. CBO estimates the growth rate of total factor productivity as the amount by which the growth rate of real output exceeds the weighted sum of the growth rates of worker hours and real capital. The respective weights are the 1989 shares of output paid as income to labor and capital. Compare with **Labor productivity**.

Trade deficit: The excess of a country's imports over its exports. (BEA)

Transfer payments: Payments in return for which no good or service is received--for example, welfare or Social Security payments or money sent to relatives abroad. (BEA)

Trough: See **Business cycle**.

Trust fund: A fund, designated as a trust fund by statute, that is credited with income from earmarked collections and charged with certain outlays. Collections may come from the public (for example, taxes or user charges) or from intrabudgetary transfers. More than 150 federal government trust funds exist, of which the largest and best known finance several major benefit programs (including Social Security and Medicare) and certain infrastructure spending (the Highway and the Airport and Airway trust funds). The term "federal funds" refers to all programs that are not trust funds.

Underlying rate of inflation: Rate of inflation of a modified CPI-U that excludes from the market basket the components most volatile in price--food, energy, and used cars.

Unemployment: The number of jobless people who are available for work and are actively seeking jobs. The *unemployment rate* is unemployment as a percentage of the labor force. (BLS)

Yield: The average annual rate of return on a security, including interest payments and repayment of principal, if held to maturity.